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ABSTRACT

The results of an initial evaluation study of Individually Guided Education (IGE) are presented. A matched sample of IGE and non-IGE schools was compared on a variety of direct and indirect outcome measures. Findings indicated general support for the achievement of direct outcomes, with few differences between IGE and control schools shown on indirect outcome measures. Conclusions and recommendations are directed both toward further evaluation efforts as well as to identifying issues in furthering research and development on IGE. (Author)

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NOVEMBER 1976

WISCONSIN RESEARCH AND DEVELOPMENT CENTER FOR COGNITIVE LEARNING

Technical Report No. 404

EVALUATING IGE: AN INITIAL LITERATURE REVIEW AND EXPLORATORY STUDY

by

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Report from Evaluation Services

Wisconsin Research and Development
Center for Cognitive Learning
The University of Wisconsin
Madison, Wisconsin

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WISCONSIN RESEARCH AND DEVELOPMENT CENTER FOR COGNITIVE LEARNING

MISSION

The mission of the Wisconsin Research and Development Center for Cognitive Learning is to help learners develop as rapidly and effectively as possible their potential as human beings and as contributing members of society. The R&D Center is striving to fulfill this goal by

- conducting research to discover more about how children learn
- developing improved instructional strategies, processes and materials for school administrators, teachers, and children, and
- offering assistance to educators and citizens which will help transfer the outcomes of research and development into practice

PROGRAM

The activities of the Wisconsin R&D Center are organized around one unifying theme, Individually Guided Education.

FUNDING

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ABSTRACT

This report presents the results of an initial evaluation study of Individually Guided Education (IGE). A matched sample of IGE and non-IGE schools was compared on a variety of direct and indirect outcome measures. Findings indicated general support for the achievement of direct outcomes, with few differences between IGE and control schools shown on indirect outcome measures. Conclusions and recommendations are directed both toward further evaluation efforts as well as to identifying issues in furthering research and development on IGE.

I

INTRODUCTION

Individually Guided Education (IGE) is a major educational innovation, possibly the most widely recognized achievement of the educational laboratories and centers funded by the federal government. There are between 1,500 and 3,000 schools that at least claim the label "IGE"; many of these schools have invested years of effort to adopt and refine the IGE program. There is a network of IGE coordinators in 23 states with schools banded together in leagues, hubs, and regional IGE coordinating councils--all of which has occurred with a minimum of external funding support. Many universities now offer teacher education courses in IGE; the Sears Foundation has supported the development of a substantial number of textbooks, filmstrips, and supporting materials for use in the teacher education effort. The National Association for IGE, formed only four years ago, has already drawn more then 1,000 participants at one of its national conferences. IGE may not ultimately become the alternative to the traditional age-graded, self-contained elementary school classroom, but it has already come closer than any other elementary school innovation of this era.

Interestingly, IGE has had this impact without substantial evaluation information available on its effectiveness. There have been a number of studies conducted by the R & D Center, by /I/D/E/A/, and by local schools. Those that could be readily identified are reviewed in Chapter III; undoubtedly others exist that we were not able to identify or locate. But there is little question that these studies of IGE are fragmentary, lack comprehensiveness, and in many instances have serious methodological limitations. In addition, the findings are by no means overwhelmingly supportive of IGE. Results of these studies are in general not compelling enough to change anyone's prior opinion about IGE.

A discussion of why IGE has grown as it has without evaluative information would go beyond the purpose of this report and the expertise of the writers. It would require an analysis of the sociology of educational innovations and the limits of current educational evaluation procedures as a source of decisionmaking. However, the lack of evaluative information for IGE is understandable given the following set of circumstances.

1. The outcomes of the IGE program have never been totally defined. The most comprehensive (but by no means universally accepted) set of outcomes is that developed by /I/D/E/A/. These 35 outcomes have proven very useful to the /I/D/E/A/-originated IGE schools for self-evaluation of their programs. However, as objectives for evaluation studies, the

/I/D/E/A/ outcomes have serious limitations. They combine both implementation and outcome objectives, and instrumentation for these outcomes is primarily designed for self-evaluation. Finally, 35 objectives are far too many to try to deal with in any single study.

On the other hand, the R & D Center has published a set of 88 performance objectives, almost all of which are implementation objectives. Like the /I/D/E/A/ outcomes, no criterion levels are established, although the R & D Center has attempted to sequence its objectives (earlier objectives to be achieved come before later objectives) to a greater degree than has /I/D/E/A/. Like the /I/D/E/A/ set, the R & D Center performance objectives are intended primarily for self-evaluation. Only recently has the R & D Center begun to define outcomes of IGE. Given the status of available materials defining IGE, it is not surprising that field evaluations of IGE have tended to be fragmentary.

2. Much of IGE, at least in regard to all seven of its components, has only recently been completed; several components have been started just within the past few years. Original evaluations of IGE were in fact evaluations of only one component--the multiunit school. Yet much of the interest in evaluation has focused on instructional change, which is dependent on curriculum materials not widely available until very recently.

3. IGE is a comprehensive multi-faceted program for changing elementary schools. As such, each school defines it somewhat differently, and the simple experimental-control evaluation design that is often desired is inappropriate. Adding to this difficulty is the fact that many of the components of IGE are not unique to IGE schools; what is unique is the total comprehensive package. Thus, in comparing IGE and non-IGE schools, the particular treatment being assessed may occur almost as frequently in the control schools as the IGE schools.

4. IGE is a very complex program, demanding several years to implement appropriately, given considerable resources and effort. There is a tendency in evaluating educational programs to want to measure effects immediately after the program has been initiated. Such an approach in IGE is bound to fail; studies of this nature degenerate to implementation studies, regardless of their intent.

5. Until very recently, the R & D Center found it impossible to obtain funding for IGE evaluation after the initial multiunit school evaluations and formative evaluations of curriculum materials. There is a case to be made for this approach, as the remaining components of IGE were not available to the degree that would have made large scale evaluation efforts justifiable. But the absence of funding has also meant that the planning and preparation for evaluation that should have been going on for the past three to four years was not done; available staff had to be assigned to other developmental efforts that were being funded.

6. What resources the R & D Center had for IGE were channeled into implementation rather than evaluation. Our point is not to criticize this decision; in fact, we are convinced that this was the correct strategy to adopt. The point is that other centers did not adopt this strategy, thus collecting far greater evaluative information, but with less emphasis on implementation of their programs. Therefore, today their programs have evidence of an evaluative nature, but fewer schools are using them. The

R & D Center is in the converse situation, with many schools and little evaluative information. Both approaches are open to criticism: the R & D Center for implementing a program without extensive data; and others for not getting the program to the field.

The conditions for evaluation of IGE have now changed. The National Institute of Education has agreed to support a three year effort, beginning in January 1976. IGE has now been available to schools for a sufficient number of years, so that the program (or at least the first version of the program) should have stabilized. The curriculum materials developed for IGE--Wisconsin Design for Reading Skill Development, Developing Mathematical Processes, Individually Guided Motivation, and Prereading--are now commercially available or will be in the near future. Perhaps of greatest importance, IGE schools are now faced with demands for accountability from parents, community, and school boards, and are fervently requesting evaluation information and assistance.

The balance of this report presents preliminary plans and procedures for IGE evaluation. Chapter II is a discussion of specific concerns that arise in the attempt to evaluate IGE, and identifies some of the unique problems associated with this type of evaluation. Chapter III is a summary of the available IGE evaluation studies, employing the distinctions developed in Chapter II. Chapter IV presents a summary of an exploratory pilot study that was carried out in January and February 1976 involving 15 IGE schools and 15 matched non-IGE Schools.

Although the structure of this report follows the typical research report format with literature review preceding empirical data collection, the activities reported in Chapters II and III were actually carried out at the same time. It should not be assumed that these activities were carried out under optimal conditions. In fact, they were conducted with minimal resources, and under time constraints that did not permit extensive advance planning. However, we do feel that what has been done will provide a base for further, more systematic efforts to evaluate IGE. It is in this context that the following chapters are presented.

II

IGE EVALUATION REPORT

CONSIDERATIONS IN EVALUATING IGE

One of the intentions of this report is to draw together the previous IGE evaluations; there has been no summary document published for a number of years. Yet the studies present a wide range of approaches and findings that are bound to defy any simple summarization. This is not surprising, as IGE itself is complex, thus not yielding to a simple evaluation design. In order to organize the previous studies, as well as provide a structure for the evaluation study discussed in Chapter IV, some issues relevant to evaluating IGE are presented here.

One way to view the evaluation of an educational program is to treat it as a research study, applying the same expectations and procedures. From the research perspective, a treatment (in this case an educational program) is introduced and its hypothesized or expected effects are measured. A design (e.g., experimental-control or pre-post) is utilized that is appropriate to the inferences desired. Any effects the program has will be observed if reasonable diligence has been shown.

There is no question that educational evaluation must follow the research model, as it represents the scientific approach to the collection of empirical evidence. But researchers trained in laboratory or quasi-laboratory settings have often failed to take into consideration some issues of considerable importance in the evaluation of educational programs, regarding both independent and dependent variables.

IMPLEMENTATION OBJECTIVES, DIRECT OUTCOMES, AND INDIRECT OUTCOMES

An educational innovation is introduced for a purpose and it is reasonable to expect that, if effective, the innovation will produce certain predicted effects. Often the effects of educational programs have not been carefully stated; due to the complexity of real life educational settings, seldom is there an opportunity to map out the complete causal network that exists between program input and output. But failure to identify the major causal outcomes of an educational innovation leads to a totally untestable intervention which must necessarily die out once the initial rush of enthusiasm has passed, to be replaced by the next innovation.

A simple model of causal inference in evaluation is presented in Figure 1. According to the model, when an educational program has been properly implemented, this implementation <u>should</u> lead to specified direct outcomes, the achievement of which in turn <u>may</u> lead to indirect outcomes

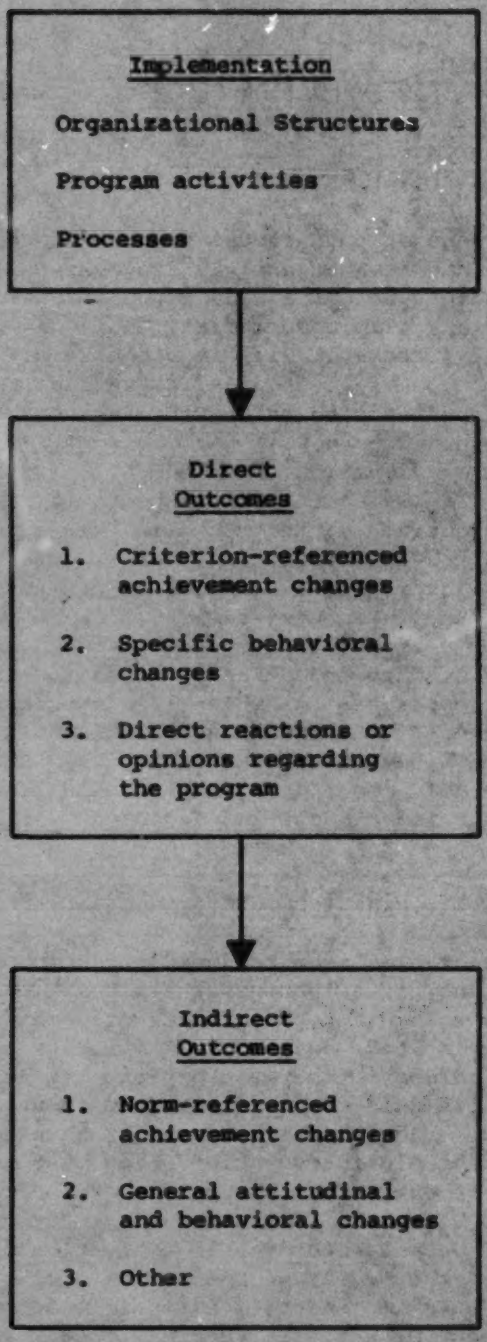

Figure 1. Model of causal inference in evaluation.

of the innovation. Implementation objectives are the specified organizational changes, program activities, or processes that are to be carried out in order for the program to be operationalized. In research terms, implementation objectives are independent variables under the control of the program staff, and criteria should be the dichotomous, yes-or-no type of decision. Direct outcomes are the high probability effects of the innovation. In other words, direct outcomes are the effects that should follow if the program is properly implemented; if they are absent, developers and proponents of the program should seek changes or abandon it. Indirect outcomes are either hoped for or unexpected effects resulting from proper implementation of the program and achievement of the direct outcomes, but on which the program does not directly operate. These may be highly desirable outcomes, but they are not outcomes for which the program should have a vested interest (failure to achieve these should not invalidate the program). For example, decreasing vandalism might be an indirect outcome of greater school involvement by students. Failure to achieve decreased vandalism might be a disappointment, but in no way invalidates the program if it indeed has created greater school involvement.

As intuitively obvious as the model is, direct outcomes have not been distinguished from indirect outcomes in much of the evaluation literature. In social science research the degree of probability of a hypothesis is left strictly to statistical test; if results are significant, the lack of a logical rationale for the relationship is not questioned. While the absurdities that can result from this approach have been documented (Lykken, 1968), many educational programs do not include statements of direct outcomes, and most dissertation writers continue to search only for statistical significance, no matter how meaningless their hypotheses might be. This approach has been termed the "blackbox model"; implementation of the program is hypothesized to lead to specified indirect outcomes, but the causal network through which this should occur is never explicated. Failure to achieve the indirect outcomes leads to a rejection of the program without the antecedent knowledge necessary to make this decision, such as whether the program was ever implemented, whether direct outcomes followed from implementation, or whether achievement of direct outcomes was positive. Without verification that the program has created the expected direct outcomes, there is little reason to declare the program, per se, responsible for the indirect outcomes.

/I/D/E/A/ has approached the problem in a manner that takes this somewhat into account. Its 35 outcomes are in fact combinations of implementation objectives and direct outcomes. According to its rationale, the IGE program includes the implementation element and the direct outcomes element, but not the indirect outcomes. Individual schools are free to determine whatever indirect outcomes of the IGE program they might desire, but /I/D/E/A/ does not consider attainment of any of these indirect outcomes as an indicator of the effectiveness of the IGE program. Thus /I/D/E/A/ utilizes the first two boxes of the model.

Distinguishing implementation from direct and indirect outcomes provides several insights into the problems of evaluating IGE. First, as mentioned earlier, the R & D Center's performance objectives are

primarily implementation objectives, and until very recently, the R & D Center had not attempted to specify direct outcomes for IGE. (It was for this reason that the Evaluation Section was forced to define direct outcomes for the study to be discussed in Chapter IV of this report.) Lack of specification of the direct outcomes has also permitted schools to adopt the IGE program for opposing reasons. Some schools may have adopted IGE to decrease competition among students while others have hoped the program would increase competition. If the program were truly this flexible, then it would need to be declared totally untestable and evaluation would be unnecessary.

However, there are serious problems with the causal inference model itself (Figure 1) when applied to any innovative educational program. Most programs have impacts that are too broad and diverse to be encapsulated in a simple causal network. Effects are often multiply caused, and there are probably a number of levels of direct outcomes. Further, it is a gross oversimplification to suggest that the causal arrow always moves from left to right. In fact, achievement of direct outcomes will often influence implementation and achievement of indirect outcomes, which will probably influence both implementation and direct outcomes, and so on.

The point is not to minimize the problems associated with trying to explicate a causal network; in fact, a description of the total logical set of relationships for any program would undoubtedly be too complex to be of any practical value. Nonetheless, some logical sequence of expectations is reasonable for any educational program and it should be possible to define, at least in probability terms, the relationships through which the program expects to fulfill its outcomes. Without this, evaluation is a "fishing expedition."

If a program is indeed introduced for a specific purpose, then the simplest approach is to adopt the Skinnerian, operant learning model. From the Skinnerian perspective, it is clear that an educational program should begin with its expected outcomes and the program should be devised to meet those outcomes. Thus, a program should be tailored to achieve certain effects, and the evaluation question should indeed be relatively simple, as the outcomes to be achieved would already be specified. However, in practice, this is not the case. Some outcomes are undoubtedly recognized from the beginning of the program, but these are seldom clearly specified. Rather, the program is defined and implemented and then the outcomes are determined, often by the evaluator rather than the program staff. There are two major reasons why programs are designed in this sequence. First, program or project developers tend to be "true believers"; they need no evaluation information to be convinced of the worth of their programs. As long as the processes have been properly implemented, the developers are willing to assume that the outcomes will automatically follow. Second, for a substantial number of innovative educational programs, outcomes are specified irrespective of the nature of the program. This selection is done not by the program developers but by administrators, school boards, or other significant groups and usually consists of standardized achievement test scores. Despite arguments questioning the meaningfulness of standardized achievement measures for most educational programs, the groups

with decisionmaking power have refused to understand and/or accept a broader set of outcomes.

Each of the elements of the causal model also creates problems from a research perspective. Implementation objectives may not be clearly specified. While this is often simply a reflection of inadequate program development effort, it must be recognized that a program operating over a one or two year period cannot include all the detail specified in the typical experimental treatment. Further, the school is not a controlled setting. All applied researchers have their own experiences of unscheduled breaks in the academic program due to weather, strikes, a winning basketball team, etc. Procedures are violated because people responsible aren't available for questions at a critical moment, or they aren't consulted when procedural changes are made, or they are consulted but don't think it would make any difference anyway. These are the constraints within which an educational program must operate in the real world.

In addition, no matter how well specified the program, and how motivated the school, there are times when the program is not implemented, leading to the comparison of experimental-control or pre-post scores which really reflect non-treatment vs. non-treatment, or as Charters and Jones (1973) have termed it, "the appraisal of non-events." The particular problem with educational programs is that implementation can seldom be reduced to a single yes-no decision because it is composed of a whole set of procedures to be carried out. The R & D Center's 88 performance objectives for IGE are more elaborate than many programs, but the problem is similar. Schools adopting IGE almost always implement some part of the program, but almost never implement all of it, at least in the first few years. How much is enough to declare implementation appropriate? And which aspects of implementation are more or less critical? Answers to these questions are very seldom available.

Regarding outcomes, it is necessary to distinguish between two characteristics of outcome measures--objectivity and relevance. Objectivity refers to the degree to which attainment of the outcome can be publicly verified. A set of paper and pencil standardized test scores are highly objective, while the opinions of an educational specialist after an onsite visit are highly subjective. But objectivity is not synonomous with credibility. Standardized achievement test scores can be meaningless because of lack of relevance to the particular innovation, language problems, or lack of motivation. On the other hand, subjective insights provided through observations are often the most penetrating evidence to be found; yet they are, as we have said, not objective or easily verified. While there is no question that, in general, the more objective the measure the more credible it is, the subjective measure can be made more credible by increasing the number of observers and carefully specifying the conditions of observations. Subjectivity is often less an issue of credibility than of cost, as it is almost always more costly to secure credible subjective evidence than credible objective evidence.

Relevance is the degree to which a measure reflects the content of the program. In the psychometric literature, the term validity is used rather than relevance. However, validity can be implied to be a characteristic of the instrument irrespective of the setting, while here the

emphasis is on the functioning of the instrument in a specified setting; thus the use of the term relevance.

Returning to the distinction of direction and indirect outcomes, measures of direct outcomes are (or should be) highly relevant to the program. If measures of direct outcomes are irrelevant, it is an indication that the logic of the relationships hypothesized has not been adequately conceptualized. These outcomes would not have to be measured by subjective means, but by the nature of many educational programs, they often are. Measures of indirect outcomes are often less relevant or even irrelevant because the indirect outcomes themselves are irrelevant to the program. However, they have tended to be highly objective (e.g. standardized achievement scores, cost data, attendance rates, etc.) except where inherently subjective, as with attitudes.

One other consideration in discussion of the evaluation studies is that evaluation can be conducted as a micro study or as a macro study. The distinction of macro versus micro refers to the specificity with which behavioral outputs are investigated. Micro studies are those that investigate specific behavioral changes related to the program. Investigations of whether students spend more time on individual instructional tasks or show greater verbal output as a result of an educational program would be micro studies, as the specific behaviors to be changed by the program are in fact assessed. Macro studies, on the other hand, do not attempt to assess whether individual behavioral changes attributable to the program actually occurred. Rather, outcomes assessed are, at best, only reflections of the actual behavioral changes resulting from the program. Most of the national policy evaluations that have been conducted, such as Headstart, have been of this nature. Evaluations of the indirect outcomes are almost always macro studies; implementation evaluations will by nature be micro studies (even if summarized across a large number of schools); and evaluations of direct outcomes might be either macro or micro. Micro studies of direct outcomes would require actual observation in the schools of behavioral changes occurring after program implementation, while macro studies might infer the behavior changes through interviews or onsite observations after the fact.

CONTENT ORGANIZATION FOR IGE

The IGE model has seven components--the multiunit school organization, the Instructional Programing Model (IPM), measurement and evaluation procedures, curriculum materials, home/school/community relations, facilitative environments, and continuing research and development. Most of these components have been operationalized, at least in regard to the elementary school. However, the seven components have been useful primarily from an input or implementation perspective. It would be difficult to argue that each of the seven components necessarily develops separate outcomes, except under contrived conditions. For example, it would be possible to design a study that looked at the effects of the curriculum materials, without having the measurement and evaluation procedures that are inherent to the curriculum programs. However, the

results of such a study would have little to say about how IGE functions in a real life setting. A more realistic approach is to group the IGE program components into broader dimensions or constructs, and to employ these as elements in evaluation studies.

There are no accepted or agreed upon broader constructs for the IGE program, but the Evaluation Section has found it useful to group the IGE program into three dimensions--organization, instruction and facilitation.

Organization. This refers to the multiunit school organization within the specific elementary school building. Teachers, aides, and interns are organized into Instructional and Research Units (I & R), with a unit leader. The unit leaders and the principal (and perhaps others) form an Instructional Improvement Committee (IIC) for the building as a whole.

Instruction. The Instructional Programing Model is applied to the identification of objectives for the building and units, preassessment to determine needs of the students, instructional program planning by objectives for each student, and reassessment after instruction to determine effects. This dimension includes the curriculum materials and many of the assessment and evaluation procedures.

Facilitation. This refers to the inclusion of the individual school building in a System-wide Program Committee and also interdistrict relations, such as Regional IGE Coordinating Councils (HUBs, the Amend Network, etc.) Home/school/community relations would also be placed in this category, as it focuses on activities expanding beyond the particular school building.

Crossing these three IGE content dimensions with the three elements of the causal inference model discussed above yields a three-by-three matrix of cells (see Figure 2). This matrix will be used to organize and discuss the IGE evaluations presented in the following chapter of this report. By employing this matrix, it becomes easier to identify the types of studies that have been done, and the areas in which little or no evaluation has been conducted to date. However, it cannot be assumed that the dimensions that make up this matrix are independent. At times it is difficult to distinguish implementation objectives from outcomes, and the line between direct and indirect outcomes is often somewhat arbitrary. Likewise, distinctions between the three content dimensions are not always completely clear, particularly in regard to a component like continuing research and development, and it is somewhat arbitrary to distinguish separate indirect outcomes for the three content dimensions. Nonetheless, the matrix does lead to many independent questions, some of which have been written into the matrix as examples.

There are some general implications for evaluation of IGE to be derived from the matrix:

1. In any study of effectiveness of IGE, some criteria for degree of implementation will need to be established. As there are no published standards, these will need to be set somewhat arbitrarily. Nonetheless, if the assessment of non-events is to be avoided, there must be some benchmark set for appropriate inclusion in the study. The exception to this rule is when the study itself concerns degree of implementation, thus making implementation the dependent rather than independent variable.

Content Dimensions

Causal Dimensions	Organization	Instruction	Facilitation
Implementation Objectives	1. Is the school unitized? 2. Has a unit leader been identified for each unit? 3. Has an IIC been formed and does it meet?	1. Have objectives been identified for building and units? 2. Is instruction organized by objectives? 3. Has pre- and post-assessment occurred?	1. Has an SPC been formed? 2. Has the district joined with other districts in a network activity? 3. Has a home-school-community program been installed?
Direct Outcomes	1. Is more instructional cooperation occurring? 2. Is decision making decentralized? 3. Has role differentiation actually occurred? 4. What are the reactions to the organization?	1. Are students achieving the objectives of the instructional program? 2. Are students more self-directed for their education? 3. What are reactions to the instructional program?	1. Do IGE schools share ideas within the district? 2. Are teachers and administrators more professionally active? 3. Have home-school community relations improved?
Staff	1. Does staff work more closely/ effectively? 2. Is staff turnover lower? 3. Is school climate more open? intellectual? etc.?	1. Is the staff positive about the effects of individualization? 2. Does staff feel more professional responsibility?	
Indirect Outcomes Students	1. Is the attitude toward school/ learning more positive? 2. Is the student's self-concept improved?	1. Do students show improved achievement?	

Figure 2. Matrix of causal and content dimensions for summarizing IGE evaluations.

2. Since direct outcomes of IGE are as yet not provided by the R & D Center, it will be necessary to adopt the /I/D/E/A/ 35 outcomes or to develop a set of direct outcomes unique to each study. If the /I/D/E/A/ outcomes are utilized, it will be necessary to distinguish implementation objectives from outcomes to avoid equating input with output for some of the outcomes.

3. Indirect outcomes of the IGE program may be selected for each study at the instigation of the investigators. However, if it is to be an evaluation study, there should at least be some logical rationale provided so that the IGE program might create the particular indirect outcome chosen. Further, there will need to be evidence collected that the IGE program did meet implementation and direct outcome criteria; otherwise, the study is likely to be little more than a collection of instances where the IGE program was never established, and inferences regarding outcomes of the program are then bound to be meaningless.

III

REVIEW OF IGE EVALUATIONS

Evaluation is currently a very popular term in the education literature, and because of this it has been applied to a wide range of different activities ranging from simple descriptive "snapshots" of phenomena to highly controlled, hypothesis-generated research studies. Evaluations of IGE have been particularly varied because of the many aspects of the IGE model and the fact that IGE has moved from research to development to operational implementation in the schools within a relatively brief period of time. As sessions at the Association for Individually Guided Education have demonstrated, a call for examples of IGE evaluation is likely to collect almost any kind of study that somehow relates to IGE.

For the purposes of this paper, we are adopting the definition of evaluation given by Worthen and Sanders (1973) which holds that evaluating means to determine the worth of something. By nature, judging the worth of something requires a comparison; simply describing a phenomenon is not enough. There are three basic ways in which the comparison might be included in an evaluation:

1. Control group comparison. This category includes the standard control group studies, e.g. IGE schools versus non-IGE schools, and studies that compare schools at differing points along the continuum (IGE schools that have implemented much of the program versus schools that have implemented only a small amount, or schools that have been IGE for a number of years as opposed to just beginning). The value of the control group will of course depend upon the extent to which appropriate controlling variables have been identified and actually employed in the design.

2. Pre-post comparisons. Possibly the most potent of the evaluation studies are those which compare a school at one point in time to that school at a later point. Unfortunately, very few of the IGE evaluation studies have been longitudinal in character, undoubtedly reflecting the fact that most of the evaluation studies have been doctoral dissertations where data collection generally occurs over a relatively short time span.

3. Comparisons to objectives. This refers to studies which assess the degree to which the program has matched its own objectives, and could be termed criterion-referenced evaluation. Neither control groups nor pre-post measures are required in this category. For IGE, this type of evaluation is appropriate only for implementation, as neither direct nor indirect outcomes and their expected criterion levels have been officially

established for IGE, making a comparison to expected outcomes impossible. The exception is opinion studies, where school staff, students, and parents are asked their reactions to IGE. While there is generally no direct comparison in these studies, there is at least the notion of an absolute standard. For example, if 90 percent of the parents support IGE, even though other programs might be equally popular, a study of this nature does provide the information that the large majority of the parents are expressing satisfaction with the existing IGE programs.

Following is a short summary of each of the IGE evaluation studies that we believe in some manner meet the minimal criteria to be considered an evaluation of IGE. Not included in this list are a great number of research studies of IGE, many of which have been very informative. However, these studies have lacked a comparison which we consider essential to evaluation. The evaluation studies are presented alphabetically, by author, in Appendix A. Note that in each of the summaries, we have attempted to give some indication of the manner in which implementation of IGE was determined, the control variables used, and the type of outcome measures employed.

SUMMARY OF EVALUATION STUDIES

The studies summarized below have been categorized by type in Figure 3. Additionally, each has been classified according to whether it is a macro or micro study, whether the measures used are subjective or objective, and whether the findings were generally positive, neutral or negative. Categorization of the studies was somewhat arbitrary in a few instances, as they contained some elements that might have been included in other cells of the matrix. The attempt has been to place the study in the cell where the preponderance of findings would be most relevant.

There are some general conclusions to be reached simply by reviewing the matrix. First, there have been no studies regarding facilitation in any of the categories. There have been some initial, exploratory studies done by the R & D Center but the fact that most facilitation issues have only recently been addressed is reflected in the paucity of the studies available. Additionally, there have been no studies dealing primarily with the implementation of instruction and the IPM. This has been touched upon in a number of the studies, but it is fair to say that very little is known about the status of implementation of instruction in IGE schools.

Implementation of Organization (MUS)

The major study by Ironside (1973) and smaller studies by Klausmeier et al. (1971), La Bay (1970), Watkins et al. (1974), and Iowa State University (1976) have all been positive. While there has been a good deal of variation in implementation in these studies, each has reported that the organizational aspect of IGE has been established in a major proportion of the schools studied. The studies by Gresso (1974) and Paden (1975) represent

	Organization	Instruction	Facilitation
Implementation	Ironside(2)* m,o/s,+ Klausmeier m, s, + La Bay m, s, + Watkins (2) m, o, + Gresso m, s, + Paden m, s, + Ames, Iowa m,o/s,+		
Direct Outcomes	Essig m, s, + Pellegrin m,o/s,+ Olzsewski m, o, + Watkins (2) m, o, +	Bradford M, s, + Hackett M, s, + Joyal m, o, + Klausmeier m, o, + La Bay m, s, + Paden M, s, + Ames, Iowa m, o	
Indirect Outcomes	Bernel M, s, + Bolin M, s, 0 Bowers M, s, + Burtley M, s, + CEPM M, s, + Edwards M, s, + Gresso M, s, + Herrick M, s, + Kelley M, s, 0 Mantzke M, s, + Parsons M,o/s,+ Richardson M, s, 0 Walter M, s, + Ames, Iowa M, s, +	Bradford M,o/s,+ Burtley M, o, + Claytor m,o/s,+ Flournoy M, o, + Gervase M, o, + Hackett M, o, + Harmon M, s, 0 Hohl M, o, 0 Kennedy M,o/s,+ La Bay M,o/s,0 Nelson M, s, 0 Quilling M, o, 0 Schneiderman M, o, 0 Watkins (2) M,o/s,0 Ames, Iowa M, s, 0	

M = Macro
m = micro study
o = objective study
s = subjective study
o/s = objective and subjective
+ = positive findings
0 = neutral findings
- = negative findings

* (2) indicates the author was listed in two separate studies.

Figure 3. Classification of IGE evaluation studies.

a somewhat different approach; in these two studies degree of implementation was used as the independent rather than the dependent variable. In each, differences were discovered between the schools that had implemented more of the program and those that had implemented less, with the results favoring greater implementation.

Direct Outcomes of Organization

In regard to the direct outcomes of organization, Essig (1971) found a greater amount of teaming in IGE schools and greater involvement by the teachers in decisionmaking. Pellegrin (1969) found fewer individual decisions and more group decisions in IGE, that unit leaders as well as principals were persons of influence in IGE schools, and that interdependency relationships were within the unit rather than within the grade level as they were in non-IGE schools. Olzsewski (1973) found greater sharing in teacher behaviors in IGE schools than in non-IGE schools. Finally, Watkins et al. (1974) reported that the students in IGE schools experienced very different activities throughout the school day than did students in a non-IGE school. It should be pointed out that only in the Pellegrin study was degree of implementation actually controlled, and only in the Pellegrin and Watkins studies were the matching characteristics of the IGE and non-IGE schools carefully controlled.

Direct Outcomes of Instruction

Regarding the direct outcomes of instruction, only the studies by Joyal (1973) and Klausmeier (1971) looked at student and teacher outcomes other than attitudes or reactions to the IGE program. Using observation techniques in a longitudinal design, Joyal reported an increase in the number of students using a wider variety of instructional materials, greater variety in size of learning groups, and increases in the frequency of teacher-pupil interactions and teacher-directed learning activities. Klausmeier found an indication of greater reading achievement, as measured by the Wisconsin Tests for Reading Skill Development. Bradford (1972), Hackett (1972), La Bay (1970), and Paden (1975) all reported positive reaction to the program by teachers, students, and parents. While none of these studies could actually demonstrate more favorable reactions given the cross-sectional designs employed, in a number of these studies the questions were worded to ask whether reactions were more favorable this year than in the previous year. Degree of implementation of the IGE program was indicated in all but the Bradford study, and matching characteristics of IGE and non-IGE schools were given, where relevant, in all of these studies.

Indirect Outcomes of Organization

As might be expected, there is a substantially larger number of evaluation studies dealing with indirect outcomes of the IGE program. Bernal (1973) found the IGE schools in his study to be more open in organizational output,

while Bowers (1973) reported the IGE schools to have significantly less control press and inhibition, and more team and motivation orientation toward change. The intellectual climate was also stronger in the IGE schools, although there was greater impulsiveness and disorder. Burtley (1974) found greater teacher cooperation and compatibility. The Center for Educational Policy and Management (CEPM) study (1973) at the University of Oregon found greater task orientation interaction in IGE schools, more involvement in school-wide decisions and greater job satisfaction with teachers. Edwards (1972) reported student attitudes toward school and peers more positive, and IGE teachers more progressive and less traditional. Gresso's study (1974) dealt with degree of implementation as measured by the /I/D/P/A/ outcomes, and found that the high implementation schools were perceived as more open, showed greater autonomy, and had principals who were less aloof and showed more consideration. Herrick (1974) reported multiunit schools to be less centralized, less stratified, and with more highly motivated teachers. There were no differences in the organizational characteristics of size, complexity, and formalization. Kelley (1973) found IGE schools in the second year of implementation to have a more open climate, although these findings were not borne out with the schools in the sample that were three years into IGE implementation. Mantzke (1973) reported increased satisfaction of principals in IGE schools with regard to the supervision of instruction, curricular development, student guidance, staff relationships, and securing and managing fiscal resources. Parsons (1971) followed students from an IGE school into junior high school and found that former IGE students were rated higher by teachers in decisionmaking, self-responsibility, self-concept and interpersonal relations. Walter (1973) reported that IGE schools were not different from non-IGE schools in organizational structures, but were significantly more adaptive. The Ames, Iowa study (1976) found that teachers viewed IGE as more positive in terms of interaction patterns, decisionmaking, continuous progress, and learning.

Only two studies reported neutral rather than positive results. Bolin (1975) reported no differences in overall scores on the Organizational Climate Description Questionnaire, although the IGE schools did exceed the non-IGE on the subtest of esprit, and were below the non-IGE schools in the subtest of production emphasis. Richardson (1972) found no differences in role perceptions and role behaviors of elementary school principals between the perceptions of the principals and the perceptions of the professional staffs as to role behaviors in IGE schools.

It must be noted that all of these studies were macro studies, and all employed subjective, self-report measures, other than a portion of the Parsons study.

Indirect Outcomes of Instruction

Concerning the indirect outcomes of instruction, there are three groupings of studies to be considered. A substantial number of the studies deal with standardized achievement scores, a somewhat lesser group deal with affective student outcomes, and a small group deal with other types of attitudes and practices in the school. For the student achievement studies, Bradford (1972) found significant differences favoring the IGE schools in

math and reading, using the Metropolitan Achievement Test in first and third grades. Burtley (1974) also used the Metropolitan Achievement Test at grades two and three and found significant increases in both reading and mathematics over a three year period. Flournoy (1975) utilized the Cooperative Primary Test (grades one to three) and the California Test of Basic Skills (grades four to six) and found all but the sixth grade students meeting or exceeding expectations. Gervase (1974) used a culture fair intelligence test as predictor and the Gates MacGinitie Reading Scale as the criterion, finding that students in grades eight to eleven had higher reading achievement than predicted. Using the Metropolitan Achievement Test, Hackett reported differences favoring the IGE schools in all areas but spelling at the second and sixth grade. With the Iowa Test of Basic Skills, Kennedy (1972) found increases in grades three and five across a six year period. La Bay (1970) employed the Gates MacGinitie at grades one and two and the Iowa Tests of Basic Skills in grades four through six, finding significant differences in reading comprehension favoring the IGE school. Quilling (1972) employed a whole set of standardized tests, including the Stanford Achievement Test, the Dorow Reading Diagnostic Test, and the ITBS. Results were mixed and contradictory, depending on the test and the particular grade level tested. Schneidermann (1973) used the ITBS at grades four to six and found no differences between the IGE schools and the other programs. Finally, Watkins et al. (1974) employed the California Achievement Test and found no differences in reading and a difference in math favoring the non-IGE schools.

Summarizing, more than half of these studies found significant standardized achievement differences favoring IGE. However, there has been a large array of tests employed at a variety of different age-grade levels. Further, there is question as to the comparability of the IGE and non-IGE schools in many of the studies, calling into question what a positive or negative finding might mean.

Regarding affective student outcomes, Bradford found positive results with the Piers-Harris self-concept measure, while Harmon (1975) found no differences with the California Test of Personality or the attitude measure "About Myself in School this Year." Nelson (1975) found no significant differences on a learning climate measure, although the direction of the findings favored the IGE schools. La Bay reported positive findings on a short school attitude measure. The Ames, Iowa, study (1976) employed the Self-Esteem Inventory for eight and ten year olds, finding similar student self-concepts in IGE and non-IGE schools. Finally, Watkins reported no differences on the Piers-Harris. Summarizing, there have been several positive findings regarding affective student outcomes, but it is difficult to make any general statement about this class of indirect outcomes. Again, there has been a wide range of instruments used and a variety of age levels.

Finally, there have been several studies looking at teacher outcomes and behaviors in IGE schools. Claytor (1974) found that teachers in IGE schools had both more open beliefs and practices than teachers in non-IGE schools. Hohl (1973) found no differences between IGE and non-IGE schools on the measure "Indicators of Quality," a rating scale measure of different school attributes.

It must be noted that the whole set of studies in the indirect outcomes classification represent a complex range of IGE practices. Some of the studies, such as Bolin, have employed schools that were just beginning the

IGE program but classified them as IGE schools. A number of studies attempted to control implementation by requiring that the school be an IGE school for a set period of time to be included in the study, but no information was provided as to actual practices. A few others, such as Nelson (1975), Pellegrin (1969), and Walter (1973) have attempted to increase the confidence in implementation by requiring the multiunit structure and unit leaders that have held the position for some number of years. There have been very few studies that have actually attempted to verify the implementation of the program in other than these broad, superficial requirements; an exception is the Herrick study (1974) which used state department personnel recommendations regarding implementation. In addition, the studies range widely in the degree to which matching characteristics have been employed. Some have attempted to match on measures such as school district, size of school, socio-economic status, pupil ethnicity, etc., while others employed few, if any matching variables as control.

Given the serious limitations of many of these studies, it is difficult to draw more than tentative conclusions. However, there is evidence to suggest that a number of IGE schools have been able to implement the organizational (MUS) structure, and that greater implementation does lead to greater outcomes. In all of the studies that addressed direct outcomes, positive findings were reported, although the outcomes measured for the instruction category have primarily been subjective reactions to the program that are open to Hawthorne effect and other influences. Indirect outcomes of the organization have been positive for the most part, suggesting IGE schools do have more open climates and are more flexible. However, it is quite possible that the IGE schools, having demonstrated an interest in innovation, brought these characteristics to the program, rather than their being the result of the program. Indirect outcomes of instruction are less certain, although increased standardized achievement was found in some of the studies. The most glaring deficiency in the IGE evaluations to date is the lack of information about the implementation and direct outcomes of the instructional program. Except for the Joyal study (1973), there is virtually nothing available in this most critical area.

IV

A PILOT STUDY OF IGE EVALUATION

It is somewhat unorthodox to label this section a pilot study, given the number of IGE evaluations that have already been done. However, as we have seen previously, the studies have been scattered and without a clear rationale, suggesting a pilot study is appropriate. Additionally, this represents a pilot effort for future R & D Center evaluation efforts, as the R & D Center has not had funds for this type of activity since the late 1960s.

Although the need for the study was clearly recognized, the impetus and direction were actually determined by a research study being carried out by the Organizational and Administrative Arrangements component (R3) of the R & D Center, as no funds existed to initiate the evaluation study separately. In late summer of 1975, Professor Lipham and the R3 component proposed to carry out a major correlational study in a national sample of IGE schools. The Evaluation Section of the R & D Center was asked to participate in discussions of this study to determine what might be done to add an evaluation component to it.

The proposed study possessed a number of strengths. A great variety of measures were scheduled to be given in all 40 of the schools, including standardized achievement, self-concept, and organizational measures. There were also four graduate students from Educational Administration who would be travelling to the schools to do actual administration of some of the measures. Further, Professor Rossmiller was adding a cost effectiveness component to the study, thus making financial and time allocation information available on each of the schools.

What the study lacked, from an evaluation perspective, was any type of comparison. While it might have been possible to define some level of implementation difference within the final sample to use as an independent variable, it was the feeling of the Evaluation Section that the major comparison being requested by practitioners was a comparison of IGE versus non-IGE. Both the Evaluation Section and the practitioners recognized that there is no simple manner in which the IGE/non-IGE comparison can definitively be made, but this is nonetheless the question that is raised by school boards and communities in deciding to adopt or to terminate IGE. Therefore, the Evaluation Section proposed to select a group of non-IGE schools to compare with those IGE schools selected for the study.

Since the IGE school sample was to be geographically scattered, and represented a wide range of demographic characteristics, it was felt that the best way to select a sample of non-IGE schools would be to draw non-IGE schools with similar characteristics from the same school districts as the IGE schools. We knew that this strategy would cause some attrition

in the sample, due to the fact that some school districts would have no adequate matching school, some districts would be unwilling to commit two schools to this massive testing effort, and some schools might be reluctant to participate due to a fear that the study might be considered a "horse race" by the schools or by individuals in that district. Nevertheless, this seemed the best strategy given the difficulties of finding a random sample to match against the IGE schools and given the limited amount of time for actually identifying schools.

In addition to the matching non-IGE schools, the Evaluation Section added to the study an onsite observation and interview procedure leading to ratings of implementation and direct outcomes. The intent was to begin to define and identify direct outcomes for IGE, and to determine whether such direct outcomes were more prevalent in the IGE than the non-IGE schools. The rationale employed was that although implementation ratings would be appropriate only in the IGE schools, the direct outcomes of the IGE program might be as prevalent in the non-IGE schools as the IGE schools (through other program efforts). Clearly, a school should weigh seriously whether it would wish to adopt the IGE model with all of its complexities and demands, if the school could achieve the same direct outcomes without implementing the IGE program. It was an initial look at this question that the onsite interview and observations were intended to provide.

One caveat needs to be made in regard to the whole study effort. The Evaluation Section had very little control or input into the decisions that were made regarding the IGE school sample. While we were invited to participate in some of the discussions of the study, the sample selection procedures, output measures and procedures for collecting the information in the IGE schools were completely in the hands of R3. The sample of non-IGE schools could not be defined until R3 had identified those (IGE) schools to be matched, which meant that there was very little time left for gaining school participation. Twice during the planning phase, the Evaluation Section threatened to resign from the effort unless more stringent minimal controls were set on the nature of the IGE sample selection. Ultimately, it was our feeling that this massive testing effort presented too great an opportunity for collecting standard evaluation information to refuse to participate, but the study was not conducted in the manner that the Evaluation Section would have chosen had it been our responsibility.

METHODOLOGY

Sample Selection

Definition of the IGE sample began in early fall, 1975. The 40 school limit had been set as a practical constraint on data collection. It was decided to define urban versus non-urban subsamples within the 40, based proportionally on the total known population of IGE schools. This proportion, for a total sample of 40, was 32 non-urban and 8 urban schools. Within each of these categories a random sample of schools was drawn. The procedure used was to randomly select 80 schools and call them serially to request participation until the required 40 schools had been obtained. A second random sample of 80 was necessary to achieve the 40 school sample within the constraint of agreement by the schools.

The only constraint placed on the sample by R3 originally was that the school needed to contain an intermediate unit (approximately grades four to six), as the form of the achievement battery was chosen for this age level. In addition, the Evaluation Section wished to set the following controls:

1. The school should be fully unitized, since the intermediate unit selected was intended to represent the whole school.
2. The unit should be multi-aged in accordance with the IGE implementation specifications.
3. IPM should have been in use for at least two years prior to testing in reading and at least one year in mathematics, as standardized achievement tests were to be used in both major subject areas.
4. The school should have a functioning multiunit structure with non-rotating unit leaders (up to one year), and a functioning instructional improvement committee.
5. The school should participate in some IGE network activity, such as an SPC League or Regional IGE Coordinating Council so that the facilit ion component of IGE would be represented in each of the schools.

The Evaluation Section worked with R3 to develop a telephone interview that would tap each of these aspects. However, differences in interpretation of this information led to the Evaluation Section's later rejection of approximately one third of the total 40 school IGE sample because of our conclusion that the schools did not meet the above-stated basic implementation criteria for IGE.

For the non-IGE schools, the basic minimal criteria set were that the school should be in the same district (or, if impossible, an adjacent district), have a self-contained, age-graded organization, and have approximately the same size, proportion ethnicity, SES, and staff age and experience as the IGE school. Since student testing in the IGE schools occurred only at the intermediate level the matching school also had to contain the same intermediate grade levels, as well as those below the sample tested (to control for input to the tested grades). Classes at the appropriate age grade level were randomly selected to approximate the size of the IGE school unit.

The procedure followed in selecting the non-IGE schools was to call the superintendent of the school district, explain the purpose and general scope of the study, and ask the superintendent to designate a school within the district that met the criteria established. While this meant that the quality of matching was dependent upon the decision of a person within the particular school district (usually with consensus from the principal of the control school), it was felt that this was the best procedure to follow given the time constraints and the fact that the local school personnel would be more aware of local conditions and idiosyncracies than someone selecting the schools from outside. In some cases, the superintendent arranged agreement with an appropriate school; while in others suggestions were made to contact other personnel directly. Further, in some cases written information was requested by superintendents or principals for presentation to school boards or other decisionmaking groups on the local level, somewhat delaying selection. In large city school districts, this delay was so great that there was insufficient time to gain permission for non-IGE schools, resulting in the absence of matches for any large city IGE schools.

It is important to note that the criteria established for matching did not include any constraint involving program, innovation, or quality other than the multiunit school organization. As long as the non-IGE school was traditionally organized, it could have any of the other characteristics of IGE. It was recognized that this could very well lead to the definition of a "tough" control group for the study. However, our intention was to assess IGE in toto, and not attempt to compare it against schools that would have none of the characteristics of an IGE school. Our observations in the non-IGE schools confirmed that this was indeed a "tough" control, being schools of high quality and great dedication.

Data for this study were originally scheduled to be collected in October and November of 1975. Had this schedule been followed, the non-IGE schools could not have been included in the study, as the Evaluation Section was unable to obtain funding from the R & D Center management at that time. However, the need for Office of Management & Budget clearance of instruments delayed the study until early 1976, permitting the IGE versus non-IGE comparison to be included. This meant, however, that the definition of the non-IGE sample had to occur in the period from November 15th to December 15th, in order that testing could begin early in January. This was not enough time to secure an adequate matching school in some districts, or to receive approval of research and evaluation committees, school boards, or other decisionmaking structures or personnel within the district, and had the effect of decreasing the size of the sample further. Ultimately, with the districts eliminated by the Evaluation Section because the IGE school did not meet minimum criteria, and with the time constraints and other problems involved in identifying non-IGE schools, the final matched IGE/non-IGE pairs were reduced to 15. Appendix B gives, in greater detail, reasons why particular schools were dropped from the final sample.

Instrumentation

The R3 component had defined instruments for the principals, unit leaders, teachers, and students. (For more complete information on R3 instrumentation selection or development, see Bocian, 1976; Feldman, in press; Mendenhall, in press; and Sigurdson, in press.) These instruments were rewritten for the non-IGE schools, where possible. Generally, this meant the elimination of terms such as unit and unit leader (and other IGE-specific terminology), and most of the changes were minor enough that equivalency of instruments could be assumed. However, the I & R Unit's Effectiveness questionnaire was eliminated for non-IGE, as there was no equivalent structure in the non-IGE schools. Following is a brief description of the instruments included in the study. Appendix C contains copies of R3 instruments as adapted for the present study. Both Principal and Teacher forms are included in Appendix C.

Principal/Teacher Background Information. The purpose of this instrument, developed by the R3 component of the R & D Center, was to gather data on the education, experience, and related professional activities of the participating staff in each school. Minor changes in terminology were made, eliminating references to IGE-specific activities and structures.

Building Complexity Checklist. This instrument was developed by the R3 component as a measure of organizational staffing. Principals of each school estimated the number of qualified people working in the (listed) specialty at least 10 hours a week. Occupational specialties were categorized into four groups: administrative staff, teaching staff, pupil personnel staff, and auxiliary staff. A total of 32 occupational specialties were estimated by principals, with provision for write-in specialties provided. Again, minor alterations were made, eliminating IGE-specific terms.

Time Allocation of Instructional Personnel. This form, filled out by the principal, participating teachers, aides, interns, and secretaries (where applicable) requested estimates of time per week (in hours or by percentage) on two major classes of activities occurring in the normal school week. Estimations of time spent on one category, direct instruction of pupils, were made for major curriculum subjects as well as pupil group size. Activities other than direct instructional activities (e.g., planning, administrative, etc.) were also assigned time estimates per week. Minor terminology changes from the original form developed by the R3 component were made by Evaluation staff, in order to eliminate specific IGE terminology.

Decision Involvement Analysis Questionnaire. This instrument attempts to measure the actual decision structure of the school. For the companion study to this effort, R3 researchers categorized the decision structures identified in the original instrument into three scales: extra school decisions, school-wide decisions, and unit-wide decisions. Further modification by Evaluation Section personnel eliminated those items dealing with IGE-specific decisions.

Principal Leadership. This form, filled out by participating teachers in each school, assessed the degree of satisfaction of teaching staff with the leadership behavior and characteristics of the principal. The 24 items in this instrument were adapted from an existing survey of organizations by R3 researchers. Responses to each item took the form of a five point scale, from "to a very little extent" to "to a very great extent".

Job Satisfaction Survey. This instrument was derived from an existing index of organizational reactions by R3 researchers. Modifications made by R3 researchers consisted of the inclusion of two scales pertaining to satisfaction in the school setting. Minor modifications made by Evaluation staff eliminated IGE terminology. The 50 items on this instrument were filled in by principals as well as participating teachers in each school. Responses took the form of a t point scale ranging from "not satisfied" to "very satisfied".

School Expenditure Data. This instrument was developed by R3 investigators to gather data on the schools' resources and internal allocation of funds. All categories of information requested were represented in documents reasonably accessible to principals (or central office personnel in cases where records were centrally controlled). Additionally, definitions of all terms necessary for accurate estimates were provided with the form itself.

Interview and Observation Forms. The overall purpose of this set of instruments, developed by the Evaluation Section, was to gather comprehensive data on all aspects of school functioning. The individual instruments,

described in more detail below, were developed by Evaluation personnel, drawing on the general IGE personnel resources of the R & D Center as well as local IGE school personnel. The instruments were designed for use by two person teams of observers/interviewers.

General development of the full set of forms proceeded in the following manner. Evaluation staff, working in conjunction with developers, support personnel, and users of IGE specified the domains of school functioning thought to have a high probability of being impacted by operationalizing IGE. As a result of this analysis, a total of 10 concepts were identified (see Rating Scales discussion below). A second central purpose of these instruments was to assess the overall implementation of the MUS Organization, IPM, and Facilitative Environments (IGE schools only).

In order to assess these concepts, a set of questionnaires, observation checklists, and documentation guides were developed for use within the following limitations. Due to time and resource constraints, it was possible for trained two person teams to be onsite at each school approximately one full day only, thus limiting the type and depth of information that might be collected. This led to the decision not to attempt to define or look for direct outcomes of facilitation, as it was felt that information regarding facilitation would have to be collected outside the school, and there simply was not adequate time. For implementation and direct outcomes in the areas of organization and instruction, Evaluation staff members drew up lists of potential questions that might be asked and observations that might be made. These were circulated throughout the staff and to selected members of the R3 study and other sections of the R & D Center. These instruments and ratings were tried out in the pilot the Evaluation Section ran in early January, 1976, and revised versions of the instruments were prepared for the study. These too were circulated in the R & D Center for final comments. Appendix D contains copies of interview, observation, and rating scale instruments.

Observation Checklist. This instrument was developed to gather information on such aspects of school functioning as building structure, space allocation, accessibility of materials, student movement, etc. Two highly comparable forms were developed: one for the IGE and one for the non-IGE school setting. This allowed more specific information to be gathered from the IGE schools on IGE implementation and functioning, while permitting comparisons to non-IGE schools on several dimensions.

Principal Questionnaire. This interview form was developed to assess the actual role and functioning of the schools' principals. Since the interviews were not formal interviews to be conducted in a set amount of time, the forms were fairly unstructured, and it was not expected that all possible information would be collected from each respondent. However, certain information was more central to the comparative evaluation, and was sought if at all possible from each respondent. The Principal Questionnaire primarily sought information on his/her role in school decision-making, instructional programs, budgeting, and other activities traditionally in the domain of the principal (as well as those activities encouraged by IGE). Again, terminology changes resulted in a comparable instrument for the non-IGE schools.

Teacher Questionnaire. This instrument was designed in a similar manner to the principal form. Its purpose was to gain information on the

actual role and functioning of the teacher in overall school operations. Specific information was sought on the teachers' role in school decision-making, development and use of instructional programs, exchange of and responsibility for students, and so on. Again, due to time and design constraints, it was not expected that all possible information would be gathered from a single teacher. In this instance, the IGE form also assessed the role and functioning of the unit leader as well as the team teacher. Non-IGE forms contained no such distinction.

Student Questionnaire. The purpose of the student interview forms was to assess the students' roles and perceptions of school operations. Information was sought on the amount and type of interaction with adult school personnel, students' active or passive role in instruction, and present knowledge of content and purpose of instruction.

Onsite Summary Report and Rating Scales. These forms were designed to be filled out by the two interview/observation team members at the end of the observation day. Each team discussed the results of their interviews and observations; recorded where, when, with whom, and how long each interview/observation took; and jointly rated (on a seven point scale) the concepts discussed earlier. In an attempt to maximize inter-team reliability in ratings, narrative descriptions of each scale point were derived and included with onsite materials to guide ratings by all teams.

Procedures. As a number of the final forty schools in the sample were in Wisconsin, four of these schools were identified as pilot schools for purposes of testing procedures. Results from these schools were in fact retained in the larger sample, but they were eliminated from the comparison study because they were visited in fall, 1975, with no opportunity to develop matching samples. The Evaluation Section participated in one of these pilots in late November, 1975, and identified an additional matched non-IGE Wisconsin school as a pilot school for our instrumentation, which was visited in early January, 1975.

The schedule for visiting the individual IGE schools was developed by the R3 component and consisted of an early morning organizational meeting, followed by a schedule of standardized achievement test administration, and brief discussion with the principal regarding school characteristics. The Evaluation Section attempted to visit the IGE schools on the same day as the R3 component, and to keep the conditions of administration in the non-IGE schools as parallel as possible. However, it was not always possible to follow the schedule determined by R3, which necessitated a separate visit to some of the IGE/non-IGE pairs by the Evaluation researchers. Such visits took place within a matter of days after the R3 researchers had visited these schools. In addition, certain alterations in the order of administration of the standardized tests were made in order to cut down the testing time for the schools (time was a major consideration for many non-IGE schools). Observation and interviewing occurred simultaneously with the testing, and continued throughout the day. As the procedures were established, two members of the Evaluation staff visited each school, and one became responsible (with teacher assistance) for the administration of the tests while the other was free to do observations and interviews. Both members of the Evaluation staff did observations and interviews throughout the balance of the day, and compared reactions immediately after the onsite, deriving a summary statement and consensus rating of the school.

RESULTS

The analysis of the data was done by instrument, with IGE and non-IGE responses matched on equivalent items and total scores. It was necessary to eliminate some questions from the IGE/non-IGE comparison where the non-IGE schools had not received an item (due to IGE specific terminology). For the IGE/non-IGE comparison, the principals, teachers, and students within each of the classifications were treated as a group and no attempt was made to analyze by school. The exception to this was with the cost data, where information was kept only if available from both the IGE and non-IGE schools within a district. It was felt that the cost information would simply be too variable unless the matching control was retained.

The data presented in the following tables is purely descriptive. No attempt was made to run inferential statistics on any of the information because this was a pilot study, and in no way could it be argued that the non-IGE schools represent a random sample. This information should be treated as an indication of initial findings that may need to be replicated on a larger, more random sample of schools.

The results are grouped into the following categories: first, the descriptive, demographic information collected from the principals and teachers; second, the instruments that deal with implementation and direct outcomes of IGE; and third, the indirect outcome measures.

Descriptive Information

Background information from principals and teachers is given in Tables 1 and 2, respectively. Note in these tables, and in others to follow, that the number of respondents will often vary slightly between questions as certain questions were not answered by some respondents. Also note that the non-IGE school sample totalled 15, but the IGE sample is only 13 or 14, as the IGE schools did not return all information to the R3 students.

Regarding the demographic information, the IGE principals were somewhat younger, with less teaching and administrative experience (questions 7 and 14). They are also somewhat more professionally active than their non-IGE counterparts, as evidenced in questions 3, 4, and 9 through 13. There were no differences in education or current enrollment in degree programs between the two sets of principals. For the teachers, those in IGE schools were also somewhat younger, with less years of teaching experience than those in the non-IGE schools. IGE unit leaders had somewhat more teaching experience and were slightly more professionally active than IGE teachers. There were no marked differences in professional activities between the IGE and non-IGE groups, although the proportion enrolled in a degree program was somewhat higher in the IGE schools. It can be concluded that the demographic characteristics of the principals and teachers in the IGE and non-IGE schools included in this study were similar.

Organizational staffing of the two samples of schools is given in Table 3. Since the matched schools were drawn from the same school district and were approximately the same size, in most instances, it is not surprising that the level of staffing is approximately equal. Also, there were very few differences in staffing patterns employed. Thus in the descriptive characteristics collected in this study, the samples of IGE and non-IGE schools were very alike.

TABLE 1

PRINCIPAL BACKGROUND INFORMATION

Question		non-IGE	IGE
1. Highest level of professional preparation?	Bachelors	0	0
	Bachelors + 16	0	1
	Masters	3	5
	Masters + 16	6	4
	Masters + 32	5	2
	Doctorate	1	2
	Total	15	14
2. Presently enrolled in degree program?	Yes	1	1
	No	14	13
	Total	15	14
3. Presentations or articles in past five years?	Yes	8	11
	No	7	3
	Total	15	14
4. If yes to 3, how many?	$\bar{X}$	8.00	9.00
	S	9.85	11.61
	Range	1-31	0-40
	N	8	11
5. Sex?	Female	3	3
	Male	12	11
	Total	15	14
6. Participated in staff development workshop in past 2 years?	Yes	11	13
	No	4	1
	Total	15	14
7. Years of teaching and administrative experience?	$\bar{X}$	20.13	15.57
	S	6.99	5.94
	Range	12-35	8-29
	N	15	14
8. Years principal in district?	$\bar{X}$	8.93	7.85
	S	5.40	5.30
	Range	1-19	3-21
	N	15	14

TABLE 1 (continued)

Question		non-IGE	IGE
9. Years principal in present school?	$\bar{X}$	5.26	6.00
	S	2.91	3.84
	Range	1-10	3-18
	N	15	14
10. Number of district committees?	$\bar{X}$	2.20	3.53
	S	1.01	1.94
	Range	1-4	1-8
	N	15	14
11. Number of professional organizations as member?	$\bar{X}$	4.00	4.57
	S	1.81	1.28
	Range	1-8	2-7
	N	15	14
12. Professional meetings attended each year?	$\bar{X}$	9.40	19.30
	S	8.06	12.87
	Range	1-30	4-48
	N	15	13
13. Number of professional offices in past 5 years?	$\bar{X}$	1.26	1.92
	S	1.16	1.43
	Range	0-4	0-4
	N	15	14
14. Age?	$\bar{X}$	45.37	40.50
	S	6.72	8.88
	Range	33-58	32-57
	N	14	14
15. Number of new teachers hired in school in past 2 years?	$\bar{X}$	4.60	5.35
	S	2.97	2.87
	Range	0-10	1-12
	N	15	14

TABLE 2

TEACHER BACKGROUND INFORMATION

Question		non-IGE	IGE	Unit Leader
1. Highest level of professional preparation?	Bachelors	31	23	5
	Bachelors + 16	25	18	0
	Masters	14	3	7
	Masters + 16	3	0	0
	Masters + 32	0	1	2
	Total	75	45	14
2. Presently enrolled in degree program?	Yes	13	13	4
	No	60	32	10
	Total	73	45	14
3. Presentations or articles in past five years?	Yes	10	9	3
	No	63	36	11
	Total	73	45	14
4. If yes to 3, how many?	$\bar{X}$	0.94	1.13	3.80
	S	0.85	1.24	4.49
	Range	0-2	0-4	0-10
5. Sex?	Female	55	34	7
	Male	17	11	7
	Total	72	44	14
6. Participated in staff development workshop in past 2 years?	Yes	50	37	11
	No	22	7	2
	Total	72	44	13
7. Years of teaching experience?	$\bar{X}$	11.44	9.24	10.57
	S	8.27	9.02	6.54
	Range	1-43	0-40	3-27
	N	73	45	14
8. Years teaching in district?	$\bar{X}$	8.61	6.40	7.50
	S	6.67	5.99	6.02
	Range	1-31	0-20	2-25
	N	73	45	14

TABLE 2 (continued)

Question		non-IGE	IGE	Unit Leader
9. Years teaching in present school?	X	5.12	4.28	4.21
	S	3.46	3.96	2.39
	Range	0-16	0-15	1-8
	N	73	45	14
10. Number of district committees?	X	1.02	1.13	1.6
	S	1.01	1.19	1.12
	Range	0-5	0-6	0-4
	N	72	45	13
11. Number of professional organizations as member?	X	2.31	2.68	3.29
	S	1.27	1.14	1.49
	Range	0-7	0-5	1-6
	N	71	45	14
12. Professional meetings attended each year?	X	6.07	6.37	8.38
	S	5.62	4.90	8.34
	Range	0-30	0-18	1-30
	N	67	45	13
13. Number of professional offices in past five years?	X	0.47	0.68	0.62
	S	0.94	1.17	1.12
	Range	0-5	0-4	0-3
	N	72	44	13
14. Age?	X	38.23	34.77	33.38
	S	11.28	13.27	8.37
	Range	23-65	24-65	23-55
	N	73	45	13
15. Time per week spent in coordinating activities (in minutes)?	X	216.90	163.30	283.85
	S	188.32	152.05	255.91
	Range	0-660	30-720	30-900
	N	68	44	13

TABLE 3

ORGANIZATIONAL STAFFING

Staff*	IGE[1] Range	IGE[1] Mean	IGE[1] # Schools w/ N 1	Non-IGE[2] Range	Non-IGE[2] Mean	Non-IGE[2] # Schools w/ N 1
Admin. Staff						
Principal	1-1	1.00	13	1-1	1.00	15
Asst. Princ.	0-0	0.00	0	0-1	0.07	1
Dir. El. Ed.	0-1	0.08	1	0-0	0.00	0
Supervisor	0-1	0.08	1	0-0	0.00	0
Adm. Intern	0-0	0.00	0	0-1	0.07	1
Other	0-2	0.23	2	0-0	0.00	0
Teaching Staff						
Classroom Teacher	7-33	15.00	13	7-28	16.53	15
Phys. Ed.	0-1	0.69	9	0-2	0.67	9
Music	0-2	0.69	8	0-2	1.07	13
Art	0-1	0.46	6	0-2	0.60	8
Spec. Ed.	0-6	1.15	7	0-4	0.94	7
Phy/Ment Retarded	0-1	0.08	1	0-1	0.07	1
Teacher Intern	0-6	0.92	4	0-1	0.13	2
Practice Teacher	0-5	1.00	4	0-9	1.73	6
Instruct. Aide	0-9	4.61	10	0-20	4.60	11
Other	0-2	0.31	3	0-1	0.20	3
Pupil Personnel						
Guidance Counselor	0-1	0.23	3	0-1	0.13	2
School Psychologist	0-1	0.31	4	0-1	0.47	7
Social Worker	0-1	0.08	1	0-1	0.13	2
School Nurse	0-1	0.31	4	0-3	0.67	8
Speech Therapy	0-2	0.62	6	0-2	0.93	13
Spec. Learn. Dis.	0-2	0.53	6	0-3	0.67	7
Attendance Off.	0-0	0.00	0	0-1	0.13	2
Remedial Reading	0-3	0.84	9	0-2	0.60	8
Remedial Math	0-1	0.15	2	0-0	0.00	0
Other	0-1	0.08	1	0-4	0.46	4
Auxiliary Staff						
School Secretary	1-2	1.15	13	1-5	1.33	15
Instr./Cler. Aide	0-6	1.00	6	0-9	0.87	5
Lay Super. (Pd.)	0-2	0.31	2	0-1	0.20	3
Lay Volunt. (unpd.)	0-15	4.00	5	0-12	3.13	8
Custodian	1-4	2.23	12	1-3	2.13	15
Cook	0-11	2.61	9	0-9	2.46	12
Bus Driver	0-4	1.07	4	0-6	1.60	7
Audio-Visual	0-1	0.08	1	0-1	0.20	3
Other	0-1	0.08	1	0-2	0.27	3

*All numbers based on full time estimates for all categories

[1]Based on data taken from 13 IGE schools

[2]Based on data taken from 15 non-IGE schools

Implementation and Direct Outcomes

Summaries of the rating scales completed onsite by the Evaluation Section staff are presented in Table 4 for each of the pairs of matched schools and for the total sample. Looking first at the implementation ratings for the IGE schools, the organization (MUS) was found to exist to a considerable extent in the IGE sample, with an overall mean of 5.4 on a scale of 7. The Instructional Programing Model was somewhat less apparent, with a mean rating just above 4 for the overall IPM and the individual subjects. Mathematics was found to be the curriculum area in which the greatest amount of implementation of IPM had occurred. Finally, facilitative environments were found to exist to a considerable extent in this sample. It should be noted that the facilitative environments rating was limited to self-report of structures existing, as the onsite interviewers had no means to actually observe the degree to which facilitation was occurring, although meeting minutes and other observable evidence of facilitation were collected where possible.

Outcome ratings were available from both the IGE and non-IGE schools. For each of the ten outcomes identified plus the overall rating, the IGE schools were rated higher than the non-IGE schools. Most of the IGE schools were at 5 or above, while the only rating for the non-IGE schools that reached a 4 was in the area of student success. The greatest differences between the IGE and non-IGE samples were for involvement in decisionmaking, instructional cooperation, professional responsibility and the use of instructional objectives. The last of these might very well be considered an implementation objective rather than an outcome. The smallest difference was recorded for student success, which was rated highly in both samples.

Overall, it can be concluded that the Evaluation staff discovered differences between the IGE and non-IGE samples in this study. These can only be presented as tentative findings because of the potential rating biases, limited onsite time, and small number of schools involved. However, this does argue that differences between the IGE program and other programs are likely to be found if the dependent measures focus on direct outcomes; our ratings indicate that something different is occurring in the IGE schools. It should also be reiterated that these findings are in no way an evaluation of the non-IGE sample, as these outcomes are not necessarily desired outputs of the program in use at those schools. Rather, they are an evaluation of the IGE program, with the non-IGE schools as a reference point.

The onsite observations and interviews also revealed some important hints about the current status of the IGE program. Most importantly, we found considerably less individualization of instruction than we would have hoped. Most of the IGE schools were employing some version of homogeneous grouping as their approach to individualization, except where they had a curriculum product that facilitated a more powerful strategy. For school-developed curricula, this was usually in mathematics and for reading it was almost always the Wisconsin Design. We found little individualization occurring in other subject areas.

However, our findings regarding individualization of instruction were not totally negative. We observed several outstanding schools and almost

TABLE 4

RATING SCALE SUMMARY

SCHOOL		OUTCOMES											IMPLEMENTATION					
		Instructional Cooperation	Involvement in Decisions	Professional Responsibility	Prof. Role Differen.	Instructional Objectives	Continuous Progress	Avail./Use of Resources	Student Access to Resources	Student Success	Student Self-Direction	Overall Rating	MUS	IPM Overall	IPM Reading	IPM Math	IPM Other	Facilitative Environments
1	IGE	6	6	7	3	6	6	5	4	6	4	6	6	5	4	6	5	5
	Non-IGE	2	2	4	2	1	2	3	3	4	3	3						
2	IGE	6	5	4	4	4	4	7	7	6	6	5	4	2	3	2	1	6
	Non-IGE	2	5	3	1	3	2	5	6	5	1	3						
3	IGE	5	5	6	4	4	4	6	3	5	3	4	5	2	3	2	1	6
	Non-IGE	4	2	6	4	3	2	7	6	5	3	4						
4	IGE	5	6	5	4	5	5	6	6	5	4	5	6	4	4	5	4	4
	Non-IGE	2	3	3	1	5	3	2	3	4	2	3						
5	IGE	6	7	7	5	6	6	7	6	6	6	6	6	5	4	7	5	7
	Non-IGE	2	2	2	1	2	3	4	4	3	4	2						
6	IGE	4	4	3	3	5	4	4	3	4	3	4	5	4	5	3	3	2
	Non-IGE	3	3	3	1	3	3	3	4	4	4	3						
7	IGE	5	6	5	5	6	5	7	7	5	6	6	6	4	5	6	3	5
	Non-IGE	3	2	2	3	1	3	2	2	4	3	2						
8	IGE	4	6	5	4	4	5	5	6	5	5	5	5	4	4	4	3	6
	Non-IGE	4	5	6	4	3	4	4	5	5	4	4						
9	IGE	6	5	6	4	5	6	6	6	5	4	5	6	5	3	6	5	5
	Non-IGE	3	4	3	1	2	3	4	4	4	1	3						
10	IGE	5	7	7	3	7	7	6	6	7	5	6	5	7	7	7	6	5
	Non-IGE	2	2	2	1	4	4	1	2	5	2	2						

TABLE 4 (continued)

SCHOOL	OUTCOMES											IMPLEMENTATION					
	Instructional Cooperation	Involvement in Decisions	Professional Responsibility	Prof. Role Differen.	Instructional Objectives	Continuous Progress	Avail./Use of Resources	Student Access to Resources	Student Success	Student Self-Direction	Overall Rating	MIS	IPM Overall	IPM Reading	IPM Math	IPM Other	Facilitative Environments
11 IGE	6	6	6	5	5	4	7	7	4	5	6	6	5	5	5	5	6
Non-IGE	3	2	1	2	2	3	3	2	3	1	2						
12 IGE	6	6	5	4	3	5	5	5	6	5	5	6	4	5	4	3	4
Non-IGE	3	4	2	1	2	3	2	4	4	2	3						
13 IGE	5	5	5	4	5	6	6	7	5	4	5	4	4	4	5	4	6
Non-IGE	2	2	1	2	1	1	4	3	4	1	2						
14 IGE	6	7	6	4	5	4	6	4	5	5	5	6	4	4	5	4	7
Non-IGE	3	3	2	2	3	3	4	3	5	2	3						
15 IGE	6	7	6	6	7	6	5	3	5	4	5	5	6	6	6	5	6
Non-IGE	3	2	5	4	3	3	6	3	4	1	3						
RANGE																	
IGE	4-6	4-7	3-7	3-6	3-7	4-7	4-7	3-7	4-7	3-6	4-6	4-6	2-7	3-7	2-7	1-6	2-7
Non-IGE	2-4	2-5	1-6	1-4	1-5	1-4	1-7	2-6	3-5	1-4	2-4						
STD DEV																	
IGE	.74	.91	1.12	.83	1.12	.99	.91	1.54	.79	.98	.67	.73	1.29	1.12	1.59	1.47	1.29
Non-IGE	.70	1.12	1.60	1.19	1.12	.77	1.59	1.29	.67	1.16	.67						
MEAN																	
IGE	5.40	5.86	5.53	4.13	5.13	5.13	5.87	5.33	5.26	4.60	5.20	5.40	4.33	4.40	4.86	3.80	5.33
Non-IGE	2,73	2,86	3.00	2.00	2.53	2.80	3.60	3.60	4.20	2.26	2.80						

all of the IGE schools in this sample were trying to increase individualization. But the management problems of individualization are overwhelming. The recordkeeping for even a single curriculum area is a major effort, and adding other areas places burdens on teachers they feel they cannot handle, unless aides are available for the clerical activities. Even more serious, however, there is no rationale available for how IGE schools are to group children for instruction when there are multitudes of different objectives in different curriculum areas. Clearly there is a need for further theoretical development of instructional programming in IGE; without it, IGE is likely never to show much instructional impact.

Another of our findings was that variation of implementation across units in the IGE schools was immense. While the R3 study targeted intermediate units in each IGE school, we purposely emphasized observing additional units. What we found was that the unit studied often bore only slight resemblance to other units. In some instances, the intermediate unit demonstrated far more of the IGE program than the other units, while in others the intermediate unit had far less of the program. It is reasonable to conclude that the within school variation was as great as the across school variation in our sample. This clearly has implications for the design of future evaluation studies of IGE.

Time allocations of the teachers and principals in the two samples, plus the unit leaders in the IGE schools, are presented in Table 5. For the sake of comparison, the time allocations of the total 40 IGE school sample are also included. In total instructional hours, staff in the IGE schools reported more time spent than in the non-IGE schools, as was the case with the noninstructional hours. In the allotment of the noninstructional hours, the IGE teachers spent less time on supervision and clerical responsibilities, and more time on planning, testing, and recordkeeping. The IGE principals put in markedly less time on supervision, planning, and recordkeeping. These results are partially explained by the presence of unit leaders, who take a portion of these responsibilities from the principal. IGE principals also spent more time on inservice activities and general administrative concerns.

These results support both the strengths and weaknesses of IGE, as practitioners have been saying. Time allocations of teachers and principals in the IGE schools are different from non-IGE schools. There is less time spent on caretaking and clerical tasks, providing more time for planning and for direct instruction. However, the IGE program does demand substantial amounts of recordkeeping time, which argues the need for techniques such as computer-managed instruction, and the staff in IGE schools puts in more time than those in non-IGE schools. While the staff in IGE schools may wish to put in extra hours, the program nonetheless requires substantial dedication. We know that in a few instances the staff of an IGE school decided the extra time required was too much of a burden.

It is interesting to note that in the comparison of the total sample of IGE schools with the 15 matched schools used in this study, the matched sample schools had generally higher time allocation than the total sample. This suggests that the 15 schools selected for the study were probably drawn from the upper portion of the sample, thus validating the sampling procedures used.

TABLE 5

TIME ALLOCATION SUMMARY DATA

a: Total sample b: Matched		Teacher			Principal			Unit Leader	
		IGE[a]	non-IGE	IGE[b]	IGE[a]	non-IGE	IGE[b]	IGE[a]	IGE[b]
Total Instruc. Hrs.		24.14	23.11	25.20	0.84	0.33	0.88	23.85	26.25
Reading	1:1	1.76	0.85	1.66	0.10	0.00	0.00	1.54	1.20
	Small Gp.	2.27	1.32	2.02	0.18	0.16	0.42	1.98	2.78
	Class Size	1.92	2.38	2.03	0.36	0.00	0.00	2.37	1.68
	> Class	0.02	0.43	0.04	0.00	0.00	0.00	0.03	0.10
	Other	0.01	0.21	0.00	0.00	0.00	0.00	0.00	0.00
Language Arts	1:1	1.10	0.61	1.12	0.00	0.00	0.00	0.90	0.85
	Small Gp.	0.64	0.49	0.60	0.00	0.00	0.00	0.53	0.83
	Class Size	2.39	2.92	2.42	0.02	0.00	0.00	2.74	2.85
	> Class	0.02	0.02	0.04	0.02	0.00	0.04	0.10	0.20
	Other	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Math	1:1	2.06	0.74	1.70	0.14	0.00	0.00	2.07	2.55
	Small Gp.	1.20	0.77	1.06	0.00	0.00	0.00	1.74	2.15
	Class Size	1.65	2.35	1.45	0.04	0.00	0.00	1.95	1.65
	> Class	0.00	0.56	0.00	0.00	0.00	0.00	0.03	0.00
	Other	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Science	1:1	0.90	0.11	0.94	0.04	0.00	0.00	0.38	0.25
	Small Gp.	0.48	0.59	0.50	0.00	0.00	0.00	0.30	0.40
	Class Size	1.82	2.14	1.98	0.00	0.00	0.00	1.41	1.40
	> Class	0.03	0.08	0.01	0.00	0.00	0.00	0.10	0.00
	Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Social Studies	1:1	0.73	0.25	0.61	0.04	0.00	0.00	0.57	0.35
	Small Gp.	0.45	0.53	0.49	0.00	0.00	0.00	0.24	0.30
	Class Size	1.93	2.73	2.43	0.02	0.00	0.00	2.32	2.58
	> Class	0.06	0.31	0.05	0.00	0.00	0.00	0.07	0.00
	Other	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Other	1:1	0.59	0.18	0.80	0.00	0.00	0.00	0.47	0.40
	Small Gp.	0.35	0.38	0.57	0.00	0.00	0.00	0.32	0.10
	Class Size	1.73	2.00	2.53	0.18	0.83	0.42	1.78	3.40
	> Class	0.05	0.03	0.13	0.04	0.00	0.00	0.24	0.25
	Other	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
Total Noninstruc.Hrs.		18.42	17.98	19.84	44.17	42.67	43.08	20.33	20.25
A. Supervision		1.29	2.38	1.41	3.72	8.73	3.98	1.19	1.68
B. Planning		6.31	5.66	8.35	2.91	5.31	2.54	6.61	7.18
C. Testing		3.06	2.25	2.67	1.59	1.85	0.92	3.26	3.10
D. Recordkeeping		2.65	1.73	2.33	0.84	2.27	0.17	3.07	2.15
E. Inservice		0.79	0.54	0.83	3.74	1.83	3.85	0.67	0.90
F. Clerical		3.34	4.87	3.16	1.55	1.88	0.17	4.03	3.75
G. Administrative		0.34	0.09	0.24	21.77	19.79	20.17	0.64	0.80
H. Other		0.69	0.21	0.94	7.83	8.83	10.85	0.82	0.70

Results from the Decision Involvement Analysis Questionnaire are presented in Table 6 for the IGE and non-IGE teachers and the IGE unit leaders. Since much of the information to be taken from this questionnaire was basically nonquantitative, only the questions dealing with the level of involvement and satisfaction with that level of involvement were analyzed for this study. In general, the ratings for the two samples were very similar. The IGE teachers claimed to have more involvement in approval of instructional materials (question 1), amount of planning time (question 3), procedures for evaluating instructional materials (question 4), and groupings to be used in instruction (question 8). The largest difference was for question 15, the areas in which teachers should specialize. The non-IGE teachers had more involvement in decisions involving number and nature of parent conferences (question 6), and the design and content of curriculum within classes (question 10). Satisfaction with involvement generally followed the pattern of responses in level of involvement. The IGE unit leaders had much higher involvement and satisfaction across the total set of questions.

Overall, the results from the Decision Involvement Analysis Questionnaire were as expected. IGE teachers have somewhat greater involvement in selection of instructional materials, planning time, and specialization, while the non-IGE teachers have more involvement in decisions relating directly to the particular self-contained classroom, such as nature of parent-teacher conferences and designing content of curriculum within the class. However, ratings of the two samples were in general quite similar. The major difference in decision involvement between IGE and non-IGE schools relates to the unit leaders, who do have a much larger role in decision-making than the teacher in either IGE or non-IGE schools.

Indirect Outcome Measures

Mean responses on the Principal Leadership Questionnaire for IGE and non-IGE teachers and IGE unit leaders are given in Table 7. The pattern of results in this table is quite consistent across questions. The IGE unit leaders are the most favorable, followed by the non-IGE teachers, with the IGE teachers being least favorable. This probably reflects the fact that in the IGE school the direct contact with the principal is made through the IIC by the unit leader, thus giving the unit leader a better opportunity to assess leadership capabilities and more opportunities to have favorable responses. In the non-IGE schools there is the possibility of more direct contact with the principal, and thus the somewhat more favorable responses of the teachers in the non-IGE schools. However, it should be noted that for all three respondent groups, the ratings of principal leadership were very high, with most means at 4.0 (satisfied) or above.

Job satisfaction (Table 8) shows some of the same trends. The IGE unit leaders almost always express greater satisfaction than the other two groups. This is most marked in the opportunity to have influence in school policy (question 22), the fairness of the administration in the assigning of extra duties (question 6), the opportunity to discuss problems with administrative personnel (question 7), and the unit leader's school as an organization for which to work (question 18).

TABLE 6

DECISION INVOLVEMENT ANALYSIS QUESTIONNAIRE

	Group	How much involvement in decision?	How satisfied with level of involvement?
1. Approval of instructional materials	IGE	3.14	3.05
	Non-IGE	2.90	2.78
	Unit Leader	3.57	3.50
2. Coordination of curriculum across classes (units)	IGE	2.77	2.68
	Non-IGE	2.86	3.05
	Unit Leader	3.43	3.07
3. Amount of planning time	IGE	2.11	2.16
	Non-IGE	1.82	2.21
	Unit Leader	2.14	2.07
4. Procedures for evaluating instructional materials	IGE	2.86	2.74
	Non-IGE	2.34	2.44
	Unit Leader	3.36	3.36
5. Criteria for evaluating instructional materials	IGE	2.40	2.80
	Non-IGE	2.29	2.40
	Unit Leader	2.86	2.93
6. Number and nature of parent conferences	IGE	2.57	2.77
	Non-IGE	2.93	3.14
	Unit Leader	2.64	3.00
7. Procedures for evaluating principal's performance	IGE	1.23	2.11
	Non-IGE	1.26	2.38
	Unit Leader	1.57	2.07
8. Groupings to be used in instruction	IGE	4.39	4.18
	Non-IGE	3.97	3.68
	Unit Leader	4.07	4.14
10. Design and content of curriculum within class (unit)	IGE	3.43	3.18
	Non-IGE	3.78	3.56
	Unit Leader	2.21	2.50
11. Procedures for evaluating teacher performances	IGE	1.79	2.43
	Non-IGE	1.72	2.61
	Unit Leader	2.21	2.50
12. Criteria for evaluating preservice and inservice	IGE	2.19	2.37
	Non-IGE	1.96	2.24
	Unit Leader	2.21	2.37

TABLE 6 (continued)

		Group	How much involvement in decision?	How satisfied with level of involvement?
13.	Nature and extent of consultant help	IGE	1.95	2.59
		Non-IGE	2.00	2.54
		Unit Leader	2.71	2.79
14.	Topics for inservice programs	IGE	2.33	2.46
		Non-IGE	2.40	2.68
		Unit Leader	3.50	3.21
15.	The areas in which teachers should specialize	IGE	3.73	3.71
		Non-IGE	2.97	3.43
		Unit Leader	3.36	3.14
16.	Instructional objectives for each child	IGE	3.95	3.77
		Non-IGE	3.75	3.64
		Unit Leader	3.79	3.93
17.	The amount and nature of supervision	IGE	2.02	2.57
		Non-IGE	2.10	2.93
		Unit Leader	2.36	3.14
18.	The budget for your school	IGE	1.74	2.31
		Non-IGE	1.49	2.53
		Unit Leader	2.57	2.36
19.	Extent of invovement of parent advisory groups	IGE	1.65	2.35
		Non-IGE	1.72	2.73
		Unit Leader	2.21	3.00

* Numbering is not complete because not all questions were equivalent for IGE and non-IGE samples.

TABLE 7

PRINCIPAL LEADERSHIP

Question	IGE Teacher (N = 44)	Non-IGE Teacher (N = 72)	IGE Unit Leader (N = 14)
1. How friendly and easy to approach is your principal?	4.16	4.29	4.64
2. When you talk with your principal to what extent does he/she pay attention to what you're saying?	4.20	4.28	4.57
3. To what extent is your principal willing to listen to your problems?	4.18	4.29	4.50
4. How much does your principal encourage people to give their best effort?	3.88	4.21	4.00
5. To what extent does your principal maintain high standards of performance?	4.16	4.17	4.00
6. To what extent does your principal show you how to improve your performance	2.98	3.26	3.36
7. To what extent does your principal provide the help you need so that you can schedule work ahead of time?	3.55	3.78	3.86
8. To what extent does your principal offer new ideas for solving job-related problems?	3.45	3.57	3.79
9. To what extent does your principal encourage the persons who work for him/her to work as a team?	3.93	3.74	4.29
10. To what extent does your principal encourage people who work for him/her to exchange opinions and ideas?	4.02	3.94	4.14
11. To what extent do you feel your principal has confidence and trust in you?	3.93	4.28	4.36
12. To what extent do you have confidence and trust in your principal?	4.02	4.19	4.36

TABLE 7 (continued)

Question	IGE Teacher	Non-IGE Teacher	IGE Unit Leader
13. To what extent does your principal handle the technical side of his/her job--for example, general expertise, knowledge of job, technical skills needed in the profession?	4.13	4.30	4.36
14. To what extent does your principal do a good job of representing your work to other teachers? ("Represent" means telling others about what you have done and can do, as well as explaining the problems you face and your readiness to do things.)	3.70	3.54	3.86
To what extent does your principal have:			
15. information about how his/her people see and feel about things?	3.55	3.70	3.93
16. knowledge of what it takes to be a good leader?	4.07	3.97	4.36
17. an attitude which encourages participation and commitment from those who work for him/her?	3.89	3.89	4.07
18. administrative skills?	4.05	4.19	4.36
19. skills for getting along with others?	4.09	4.00	4.36
20. a work situation which allows him/her to be a good leader?	3.93	3.94	4.36
21. interest and concern for the people who work for him/her?	4.25	4.09	4.57
When it is necessary for decisions to be made that affect you, to what extent does your principal do each of the following <u>before</u> final decisions are made?			
22. Provide you with information about the decisions?	3.73	3.93	4.36
23. Ask for opinions and ideas from you?	3.84	3.87	4.64
24. Meet with his/her teachers <u>as a group</u>, present problems that must be solved and work with the group to find solutions?	3.77	3.97	4.07

TABLE 8

JOB SATISFACTION SURVEY

Question	IGE Teacher (N = 45)	Non-IGE Teacher (N = 72)	IGE Unit Leader (N = 14)
How satisfied are you with:			
1. the professional competence and leadership of your administrators?	3.87	3.12	4.36
2. the ability of your administrators to encourage people to work together?	3.51	2.97	4.36
3. the manner in which school policies and regulations are enforced?	3.38	3.02	3.86
4. the recognition you receive from your administrators for your teaching achievements?	3.27	3.10	3.79
5. the procedures used to evaluate teachers in your school?	3.24	2.92	3.43
6. the fairness of the administration in the assigning of extra duties?	3.96	3.46	4.50
7. the opportunities provided to discuss problems with administrative personnel?	3.78	3.18	4.21
8. the trust you have in your administrators?	4.11	3.06	4.29
9. the administrator's trust in you?	3.93	3.33	4.14
10. the innovativenesss of your school administrators?	3.87	3.25	4.00
11. the personal and social relationships you have with other teachers?	3.98	4.09	4.07
12. the recognition you get from other teachers for your work?	3.71	3.75	4.00
13. the quality of work of other teachers in your school?	3.80	3.92	3.93
14. the amount of work done by other teachers in your school?	3.74	3.85	3.93

TABLE 8 (continued)

Question	IGE Teacher	Non-IGE Teacher	IGE Unit Leader
How satisfied are you with:			
15. the teaching, in light of what you expected to be doing as a teacher?	3.60	3.76	4.07
16. your future in your school district?	3.64	3.68	3.71
17. your opportunities for growth in your profession?	3.71	3.60	3.36
18. your school as an organization for which to work?	3.75	3.90	4.29
19. the professionalism your school district shows toward teachers?	3.20	2.89	3.50
20. the degree of your involvement in your school?	3.69	3.73	4.57
21. the general reputation of your school?	3.87	3.99	3.93
22. the opportunities that you have to influence school policy?	3.27	3.13	4.00
23. your awareness of what is "going on" in your school?	3.40	3.36	3.86
24. the goals emphasized by your school?	3.58	3.69	4.00
25. the amount of money you make?	3.11	2.62	3.36
26. the salary schedule and fringe benefits in your school district?	3.11	2.74	2.86
27. the physical facilities of your school?	3.24	3.49	3.57
28. the number of students accommodated in your school?	3.31	3.33	3.43
29. the availability of appropriate instructional materials and equipment?	3.40	3.41	3.79
30. the arrangement of space and equipment in your school?	3.24	3.32	3.64

TABLE 8 (continued)

Question	IGE Teacher	Non-IGE Teacher	IGE Unit Leader
How satisfied are you with:			
31. the amount of preparation time provided for teachers in your school?	2.71	2.79	2.64
32. the custodial services provided in your school?	3.51	3.03	3.57
33. the quality of the work you do?	3.62	3.79	4.21
34. the extent to which you are motivated by your job?	3.60	3.87	3.71
35. the freedom that you have to experiment with instructional methods?	3.80	4.20	4.29
36. the intellectual stimulation that you receive from your work?	3.53	3.58	3.86
37. the opportunities that you have to teach in your major areas of interest?	3.51	3.70	4.00
38. the amount of work you are expected to do?	3.24	3.52	3.21
39. the amount of time that you actually spend in teaching?	3.31	3.68	3.50
40. the total time that you spend with students?	3.29	3.74	3.79
41. the number of students for whom you are responsible?	3.07	3.49	3.43
42. the extent to which you are able to meet your students' academic needs?	2.89	3.23	3.29
43. the extent to which you are able to meet your students' affective needs?	3.17	3.33	3.50
44. the quality of your interactions with your students?	3.62	3.80	4.14
45. the extent to which the community recognizes and appreciates its educators?	2.69	2.89	2.79

TABLE 8 (continued)

Question	IGE Teacher	Non-IGE Teacher	IGE Unit Leader
How satisfied are you with:			
46. the adequacy of financial support provided your school by the community?	2.87	2.86	2.86
47. the understanding of your school's program by parents and the community?	2.71	2.67	3.00
48. the community's involvement in your school's program?	2.80	2.72	2.71
49. the methods used to communicate with the community about your school?	2.98	3.05	3.21
50. the methods used to report student progress to parents?	3.09	2.77	3.21

Range 1-5 for all variables

The IGE and non-IGE teacher samples gave very similar responses with the non-IGE teachers being slightly more satisfied. The major exception to this is in the first 10 items of the survey that deal with attitudes toward the administration. Here the IGE teachers were considerably more satisfied, which probably reflects the inclusion of the IGE teachers by the unit leaders as part of the administration. Their contact with the unit leader is undoubtedly closer and their feeling of influence is probably greater, leading to greater satisfaction. In the other areas there was no marked difference in satisfaction between IGE and non-IGE teachers.

A summary of school expenditure data is reported in Table 9. In order to adjust for differences in enrollment, all entries have been expressed as per pupil costs. As mentioned earlier, there were only 10 schools in each of the samples that were used in this analysis, as missing data for one school led to the dropping of the matching school. Complete cost information could be obtained for only 10 pairs.

Costs in the two samples were very similar. The teacher salary figure was slightly higher in the IGE sample, but the cost of other certified personnel was higher in the non-IGE school. It should also be pointed out that the teacher salary classification would include unit leaders, who are often paid somewhat higher salaries for the additional administrative responsibilities that they carry.

Instructional supplies were somewhat higher in the IGE schools, but purchase of textbooks was somewhat less. This is an expected finding, as the use of the Instructional Programing Model should lead to a more diverse approach to instruction. In general, it can be concluded that the IGE and non-IGE schools represented in these samples have approximately the same per pupil cost.

Pupil data are reported in Tables 10 and 11. In Table 10, the reading and math subscales of the CTBS are summarized for each pair of schools and for the total samples. There were no substantial differences in standardized achievement between the IGE and non-IGE schools in the samples. In fact, there was marked consistency in results. One interesting sidelight is that there was more than a one age-grade year difference between the fourth and fifth, and fifth and sixth grade samples in both the IGE and non-IGE schools, which might be interpreted to mean that students benefit from more time in both of these samples of schools.

Finally, in Table 11 the results of the Student Observation Scale (SOS) are summarized for the individual pairs and the total samples. There were no substantial differences on any of the subscales of the SOS. It must be noted that the scores generated on the SOS are norm-referenced standard scores, and it is possible that any variation between IGE and non-IGE schools has been lost by transformation of the raw scores through the norms.

TABLE 9

SCHOOL EXPENDITURE COSTS ON A PER PUPIL BASIS* IN DOLLARS

Variable			MEANS PER PUPIL Non-IGE	IGE
Total School	1.	Principal Salary	36.63	37.66
	2.	Teacher Salary	418.74	469.06
	3.	Other Certified Personnel	58.96	39.30
	4.	Secretary/Clerical	17.22	18.82
	5.	Other Salaries	18.11	29.68
Supplies	6.	Instructional Supplies	8.97	11.58
	7.	Other Supplies	.93	2.58
Textbooks, Library, and Audio-Visual	8.	Textbooks	6.09	4.31
	9.	Library books	2.86	3.43
	10.	Periodicals/Newspapers	.25	.24
	11.	Audio-Visual	1.63	1.50
	12.	Other	.66	.33
Other Expenses	13.	Travel	.47	.91
	14.	Expenses for Inservice	.44	.50
	15.	Other Expenses	.10	1.19
Plant Operation	16.	Plant Engineers	7.10	7.72
	17.	Custodians	31.60	33.73
More Plant Operation	18.	Supplies and Materials	4.22	3.22
	19.	Utilities	22.93	19.02
	20.	Other Expenses	1.94	2.06
Repairs	21.	Repairs to Plant	5.37	4.43
Capital Outlay	22.	Replace Instructional Equipment	1.55	.96
	23.	Add Instructional Equipment	2.11	2.88
District Average Salary	24.	Elementary Teacher	22.27	23.94
	25.	Principal--Elementary	35.72	37.16
	26.	Instructional Aides	6.45	7.07
	27.	Secretarial/Clerical	9.70	11.52
District Fringe Benefit Average	28.	Elementary Teacher	1.91	2.57
	29.	Principal--Elementary	2.85	2.96
	30.	Instructional Aides	.60	.91
	31.	Secretarial/Clerical	1.04	1.29
Allocation	32.	Yes = 1, No = 2	.003	.003
		N	10	10

*Each Variable was divided by the N for the School.

TABLE 10

CTBS SUMMARY TEST RESULTS

District	Grades Tested	Reading Vocabulary Grade 4 N	Grade 4 $\bar{X}$	Grade 5 N	Grade 5 $\bar{X}$	Grade 6 N	Grade 6 $\bar{X}$	Reading Comprehension Grade 4 N	Grade 4 $\bar{X}$	Grade 5 N	Grade 5 $\bar{X}$	Grade 6 N	Grade 6 $\bar{X}$	Math Concepts & Applic. Grade 4 N	Grade 4 $\bar{X}$	Grade 5 N	Grade 5 $\bar{X}$	Grade 6 N	Grade 6 $\bar{X}$	Math Computations Grade 4 N	Grade 4 $\bar{X}$	Grade 5 N	Grade 5 $\bar{X}$	Grade 6 N	Grade 6 $\bar{X}$
1 IGE	4,5	8	25	10	28	-	-	8	30	10	30	-	-	7	24	11	30	-	-	7	21	11	30	-	-
Non-IGE	4,5	8	16	5	25	-	-	8	21	5	30	-	-	7	29	8	32	-	-	4	21	12	27	-	-
2 IGE	4,5	6	17	15	23	-	-	6	22	15	24	-	-	3	16	18	25	-	-	3	13	18	22	-	-
Non-IGE	4,5	21	17	22	15	-	-	21	21	22	20	-	-	21	21	22	30	-	-	22	16	21	20	-	-
3 IGE	4,5	10	14	13	22	-	-	10	18	13	25	-	-	11	23	11	24	-	-	11	21	11	26	-	-
Non-IGE	4,5	22	23	25	25	-	-	25	26	25	27	-	-	25	23	25	30	-	-	23	25	25	31	-	-
4 IGE	4,5,6	5	26	7	31	12	32	5	22	7	34	12	33	10	28	7	38	7	39	10	27	7	38	7	39
Non-IGE	4,5,6	13	22	7	26	14	32	13	26	17	30	14	37	9	23	12	32	14	37	15	22	6	35	21	39
5 IGE	4,5,6	8	14	7	18	9	33	8	19	7	21	9	35	11	19	4	33	13	29	11	19	4	31	13	28
Non-IGE	4,5,6	9	19	15	22	12	23	9	21	15	24	12	26	18	21	9	29	7	36	13	19	12	24	12	33
6 IGE	4,5,6	16	25	7	33	10	37	16	27	7	35	10	41	8	33	13	37	11	38	8	24	13	39	11	41
Non-IGE	4,5,6	14	20	19	28	26	31	14	21	19	33	26	37	21	29	18	36	18	42	16	24	17	34	22	38
7 IGE	4,5,6	16	12	18	15	15	16	16	14	18	17	15	19	15	13	20	20	16	21	15	11	20	20	16	23
Non-IGE	4,5,6	14	12	17	12	12	13	14	13	17	14	12	15	14	16	15	19	12	26	17	16	14	25	14	25
8 IGE	5,6	-	-	19	27	15	34	-	-	19	32	15	37	-	-	11	40	17	38	-	-	11	34	17	39
Non-IGE	5,6	-	-	16	33	17	36	-	-	16	36	17	39	-	-	15	36	18	41	-	-	16	38	17	43
9 IGE	5,6	-	-	15	25	24	30	-	-	15	30	24	33	-	-	22	31	13	41	-	-	22	29	13	38
Non-IGE	5,6	-	-	24	28	20	30	-	-	24	30	20	34	-	-	27	31	20	36	-	-	27	33	17	39
10 IGE	5,6	-	-	6	31	14	31	-	-	6	34	14	32	-	-	14	31	9	38	-	-	14	33	9	40
Non-IGE	5,6	-	-	24	24	19	28	-	-	24	25	19	30	-	-	21	30	23	40	-	-	16	35	30	35
11 IGE	5,6	-	-	20	29	16	32	-	-	20	30	16	36	-	-	19	33	20	39	-	-	19	33	20	40
Non-IGE	5,6	-	-	17	28	19	30	-	-	17	29	19	32	-	-	18	35	22	38	-	-	17	32	21	37

TABLE 10 (continued)

District	Grades Tested	Reading Vocabulary Grade 4 N	Grade 4 $\bar{X}$	Grade 5 N	Grade 5 $\bar{X}$	Grade 6 N	Grade 6 $\bar{X}$	Reading Comprehension Grade 4 N	Grade 4 $\bar{X}$	Grade 5 N	Grade 5 $\bar{X}$	Grade 6 N	Grade 6 $\bar{X}$	Math Concepts & Applic. Grade 4 N	Grade 4 $\bar{X}$	Grade 5 N	Grade 5 $\bar{X}$	Grade 6 N	Grade 6 $\bar{X}$	Math Computations Grade 4 N	Grade 4 $\bar{X}$	Grade 5 N	Grade 5 $\bar{X}$	Grade 6 N	Grade 6 $\bar{X}$
12 IGE	5,6	-	-	26	28	28	28	-	-	26	30	28	31	-	-	33	28	23	34	-	-	33	32	23	35
Non-IGE	5,6	-	-	9	21	19	26	-	-	9	27	19	31	-	-	15	31	13	31	-	-	8	34	19	38
13 IGE	6	-	-	-	-	21	32	-	-	-	-	21	33	-	-	-	-	23	43	-	-	-	-	23	44
Non-IGE	6	-	-	-	-	24	34	-	-	-	-	24	36	-	-	-	-	21	43	-	-	-	-	21	41
14 IGE	5,6	-	-	11	16	20	25	-	-	11	23	11	27	-	-	23	23	13	32	-	-	23	26	13	35
Non-IGE	5,6	-	-	33	21	24	22	-	-	33	23	24	23	-	-	22	27	30	31	-	-	31	30	23	37
15 IGE	5,6	-	-	19	26	16	31	-	-	19	27	16	33	-	-	-	-	-	-	-	-	-	-	-	-
Non-IGE	5,6	-	-	19	31	19	30	-	-	19	34	19	33	-	-	-	-	-	-	-	-	-	-	-	-
IGE:[a]																									
Raw Score Mean		69	18[b]	193	25		30	69	21	193	28	191	32	65	22	206	29	165	36	65	19	206	29	165	37
Grade Eq.			4.4		5.6		6.8		4.4		5.8		6.9		4.2		5.6		7.0		3.7		5.2		6.5
Percentile Rk.			49		53		56		51		56		53		47		52		57		35		46		51
Non-IGE:																									
Raw Score Mean		101	19	252	24		28	104	22	262	27	225	32	115	23	227	31	198	37	110	20	222	30	217	37
Grade Eq.			4.6		5.4		6.3		4.7		5.6		6.9		4.4		5.9		7.2		3.9		5.3		6.5
Percentile Rk.			53		50		49		54		53		53		50		57		60		39		49		51

[a]Means rounded to nearest whole number for conversion to G. E. and P. R.

[b]Conversions to G. E. and P. R. made only on raw scores

TABLE 11

SOS SUMMARY TABLE

District		Self Acceptance	Self Security	Social Maturity	Social Confidence	Affiliation: School	Affiliation: Teacher	Affiliation: Peer	N
1.	IGE	46.53	47.06	39.45	48.00	58.02	47.02	43.47	47
	Non-IGE	46.18	46.82	38.91	45.50	59.27	46.32	43.86	22
	Non-IGE	53.05	46.50	42.32	47.02	61.00	51.02	46.80	44
2.	IGE	47.49	48.60	51.45	52.49	47.40	47.56	48.67	55
	Non-IGE	51.48	47.44	53.78	62.41	50.41	53.52	47.26	27
3.	IGE	50.00	46.30	49.54	51.41	47.14	47.35	47.35	37
	Non-IGE	50.68	49.24	49.18	53.00	51.53	47.97	50.21	38
4.	IGE	53.76	51.33	51.95	55.67	51.86	52.90	52.90	21
	Non-IGE	49.33	47.96	49.78	52.82	47.00	50.49	49.62	45
5.	IGE	48.61	48.10	47.84	49.32	47.97	47.26	48.32	31
	Non-IGE	49.54	48.24	49.65	54.08	52.97	48.19	49.92	37
6.	IGE	52.09	49.73	53.67	55.58	50.09	52.24	50.82	33
	Non-IGE	51.21	54.63	51.18	51.53	45.26	49.58	53.66	38
7.	IGE	53.17	54.62	53.19	57.93	52.02	54.88	53.81	42
	Non-IGE	52.17	48.60	52.13	55.90	52.35	54.25	51.45	40
8.	IGE	51.62	46.83	53.14	58.31	50.79	53.24	50.62	29
	Non-IGE	53.09	48.48	53.06	55.70	49.73	53.70	50.45	33
9.	IGE	52.21	48.57	47.89	53.79	54.75	52.11	50.18	28
	Non-IGE	52.45	50.43	50.95	54.98	53.17	52.64	52.33	42
10.	IGE	51.06	48.44	55.61	57.61	45.56	54.89	50.22	18
	Non-IGE	50.94	51.38	51.44	52.44	50.69	54.00	52.00	16
11.	IGE	50.20	48.53	48.53	51.87	51.13	50.07	48.80	15
	Non-IGE	45.58	47.79	43.63	49.74	54.58	45.88	44.33	43
12.	IGE	47.00	47.79	49.75	54.67	50.17	49.04	46.63	24
	Non-IGE	53.08	47.27	53.27	55.71	52.12	53.20	51.29	49
13.	IGE	54.30	46.75	53.35	57.35	51.90	54.05	50.10	20
	Non-IGE	53.93	50.49	53.42	57.84	52.88	53.81	52.63	43
14.	IGE	52.93	47.68	51.54	56.68	55.39	53.68	51.07	28
	Non-IGE	50.85	50.09	52.20	56.47	50.65	53.16	50.65	55
15.	IGE	50.42	50.75	51.15	53.67	50.38	49.52	50.10	52
	Non-IGE	50.37	48.72	49.26	54.11	52.96	52.17	48.91	54
MEAN:	IGE	50.76	48.74	50.54	54.29	50.97	51.05	49.54	480
	Non-IGE	51.18	49.22	50.35	54.25	51.82	51.57	50.14	604

V

SUMMARY AND CONCLUSIONS

In summary, IGE, as a comprehensive system of education and a viable alternative to the age-graded, self-contained classroom approach, is making an impact. This impact is shown not only by the over 2,000 elementary and secondary schools already utilizing IGE, but also in the active national organization; 23 state networks and the accompanying leagues, pacts and hubs; and the numerous teacher education institutions with IGE programs.

Further evidence of impact can be found in the numerous evaluations of IGE to date. Evidence has been presented by many researchers that the implementation of the organizational component of IGE has occurred in most schools studied; and that further, increased involvement in terms of time spent results in greater implementation.

Studies examining the direct outcomes of implementing IGE have reported a number of effects on schools studied. IGE school staffs have shown more teaming, involvement in decisionmaking and sharing than non-IGE controls. Further, evidence has been presented which indicates that IGE schools show a markedly different pattern of interrelationships within the staff, and that students in IGE schools receive a different set of experiences in school than do non-IGE control students. The latter finding is probably tied to other results pertaining to the impact of implementing the instructional component of IGE as well. Other studies of the instructional program have shown that a wider variety of instructional materials as well as instructional group sizes are evidenced in IGE schools, possibly contributing to the overall positive attitudes of students, staffs, and principals of IGE schools toward the concept.

Past evaluation efforts have also identified a number of indirect outcomes of IGE. Studies of school organizations have shown that IGE schools are less centralized, stratified, and inhibited; and have greater motivation toward change, principal and staff satisfaction, teacher cooperation and compatibility, staff involvement in decisionmaking, task orientation, and intellectual climate.

Examination of indirect outcomes of instruction has revealed mixed findings. Student achievement in math and reading was found to be superior in IGE schools in some studies, while no differences were found in others. Similarly, student affective measures have given IGE the advantage in some evaluations, but in others no differences were apparent.

A summary of the results of the present study serve to corrobate and amplify many of the previous results (see Appendix E). Present findings have indicated that the present sample of IGE and non-IGE schools were quite similar in terms of demographic characteristics of staff and staffing patterns. Further, there were indications that the IGE schools did, in fact, attain more of the

direct outcomes of IGE, both in terms of onsite ratings as well as in self-reports of time allocation and decision involvement. Greatest differences between IGE and non-IGE controls were shown in the presence and functioning of the MUS organization and facilitative environments; as well as increased professional involvement and responsibility, involvement in decisionmaking, use of instructional objectives, and degree of instructional cooperation. Present findings also indicate that most schools studied have not fully implemented the individualization of instruction component. However, this finding is balanced by the obvious efforts to increase individualization, as well as by the fact that materials for individualized instruction have only recently become commercially available. Couple this with the result that time for planning, testing, and recordkeeping is also increased in IGE as compared to non-IGE schools, and it is a compelling argument for some system like computer-managed instruction.

In terms of indirect outcomes, the present findings indicate that degree of satisfaction with roles and leadership structure parallels the perceived degree of involvement in the decisionmaking and leadership structure of the school. Trends indicate that as IGE schools increase involvement, measures of satisfaction increase concomitantly. Further, expenditures in both samples were similar. Finally, there was no evidence of difference in the student outcome measures of standardized achievement and student self-concept.

VI

RECOMMENDATIONS

Recommendations derived from the present as well as previous evaluation efforts have two foci: those involving further research and development, and those regarding specifications for future IGE evaluation efforts. First, there is no compelling evidence that IGE schools differ from non-IGE schools in any of the indirect outcomes specified in this study. Given the marked similarity of these samples on measures such as standardized achievement, it must be argued that further study of indirect outcome measures for IGE is likely to be a waste of resources.

A more fruitful approach would be to emphasize more complete definition and investigation of the direct outcomes of the IGE program. Present findings have indicated that there are some differences between IGE and non-IGE schools in the area of direct outcomes, despite the fact that measures in this area are considerably more primitive because development has not emphasized them. It is recommended that future research and development efforts with regard to IGE focus on further definition and ranking of direct outcomes. Further, future evaluation efforts should utilize these definitions, as well as relate them to the relative availability of all seven components of the IGE concept. In other words, it must not be expected that direct outcomes specified for recently completed components be as effective (no matter how clearly defined) as those specified for more long-standing components (e.g., the MUS organization). Further considerations in assessment of specified direct outcomes relate to the availability of the necessary support structures. For example, little is known about the impact of the facilitative environments component of IGE. However, even extensive definition of expected direct outcomes of this component will be of little evaluative use in instances in which facilitative environments do not yet exist or are in early stages of implementation.

There is considerable evidence from the literature, and from the study here, that instruction in IGE schools has not changed to the degree that organization has. This is predictable, both because administrative changes are much easier to make than instructional changes, and because development of IGE initially stressed the multiunit school organization. The present findings indicate that instruction changed only when the curriculum materials used demanded an instructional change. In addition, it was found that individualization of instruction in only one or two subject matter areas greatly increased recordkeeping efforts. Without further development of alternative forms of recordkeeping (such as computer-managed instruction) it may be unreasonable to expect full individualization of instruction. It is recommended that a major study of the process necessary to implement the Instructional Programing Model, including documentation of ongoing efforts to individualize, and problems encountered be initiated.

It must also be recognized that almost all of the studies of IGE have utilized very crude measures of implementation. When dealt with at all (beyond studying schools that have adopted the label of IGE) the most common approach has been to select schools that have been in the program for a year or two. Certainly this is better than to choose schools just beginning to use the IGE model, but it is at best a very primitive indication of the degree to which the program has actually been adopted and implemented. Several studies went one step further and added some additional criteria (such as requiring that unit leaders occupy their positions for more than a year) which have certainly improved the studies, but have in no way guaranteed that implementation has occurred. Even in the present study, we were forced to use relatively crude measures of implementation of instruction, as so little is known about the implementation process in this area. It is recommended that future studies of the IGE program utilize actual observational data as a basis for determining implementation. This will be an expensive endeavor, and will undoubtedly result in studies of relatively narrow scope. However, it is senseless to continue to collect information about the IGE program in the absence of reliable data that the program itself exists in the targeted schools.

The major portion of the evaluation studies of IGE to date have been macro studies lacking information regarding either implementation or direct outcomes. While these studies have supposedly been program evaluations, asking "Does IGE work?" they have in fact been policy evaluations asking whether the resources expended on IGE have led to any discernable effects on specified school outcome measures. Such studies are certainly of value in the area of educational policy investigations, but they yield little, if any, information about the influence of IGE unless a functioning IGE program can be demonstrated. It is recommended that implementation objectives and direct outcomes be identified and criterion levels established as part of the design specifications of future IGE evaluations. Further, instead of asking the question "Does IGE work?" it is recommended that future studies ask "Can IGE work?" Given a positive answer to this question, following studies should ask "What needs to be done to make the program work?" so that schools can decide whether it is worth the time and effort to adopt the program. The problem with asking "Does any individual program work?" is that it ignores the real life variability that exists in the field. Results almost always indicate that a program has worked in some places but not in others, yet how much of this is due to the program, per se, is never determined. It would make much better sense to design a program evaluation under real life conditions with operating, non-developmental schools, within budget constraints that make it reasonable for schools to cooperate, and in settings where the program will be given a very fair chance of succeeding. If the IGE program cannot succeed under these conditions, then it is reasonable to assume that it will be of little value to other schools. If, on the other hand, the program does succeed under these conditions, then further studies are needed to determine exactly what it takes to make the program work. Obviously, some parametric studies would need to be run to accommodate different school conditions, such as urban or suburban settings, or large school versus small school, or to investigate special problems, such as the problem of handling kindergarten or special students. Such a strategy would answer the program evaluation questions for the developers and funding agencies, and at the same time provide the information to schools that they need in order to make program decisions.

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APPENDIX A

EVALUATION STUDIES

Bernal, L. C. The introduction of the Individually Guided Education/ Multiunit Elementary School Model in selected elementary schools and the effects on organizational output. Unpublished Ph.D. dissertation, Boston University, 1973.

The major question investigated in this study was whether staff and students would view the organizational output of an IGE/ MUS school as more open than a control school. The sample consisted of 359 students and 63 teachers in four schools. Two schools were IGE (implemented in 1971-72) and the two control schools were chosen to be close in physical makeup to IGE. Testing occurred in school year 1971-72, during implementation. Both teachers and students responded to various questionnaires. Findings indicated that the perceptions of teachers and students were that the IGE school was more open in its organizational output than the control.

Bolin, J. B., Jr. A study of organizational climates of selected IGE schools and non-IGE schools in Kentucky. Unpublished Ed.D. dissertation, University of Tennessee, 1975.

The purpose of this study was to compare the organizational climate of six IGE and six non-IGE schools in Kentucky. Principals and teachers in the 12 schools sampled were administered the Organizational Climate Description Questionnaire. All 8 subtests of the OCDQ were of interest in this study. The six IGE schools studied implemented IGE under the auspices of Title III in Kentucky. All six were admitted into the sample of the study at the time they had signed the commitment to change over to IGE. The six control schools consisted of six schools in similar districts that did not sign a commitment to change over to IGE. Findings indicated that overall there were few differences between the IGE and non-IGE schools except in terms of the subtests "esprit" and "production emphasis." IGE schools showed significantly greater esprit and less production emphasis than the non-IGE schools. The overall t-test comparison (summing over the 8 subtests) showed no significant difference between IGE and non-IGE schools.

Bowers, G. R. The organizational climate in selected Ohio multiunit and traditional elementary schools. Unpublished Ph.D. dissertation, University of Akron, Ohio, 1973.

This study presents the results of a comparison of organizational climate between IGE and non-IGE schools in Ohio. Forty-eight Ohio schools, (24 IGE and 24 non-IGE) responded to a mailed questionnaire assessing organizational climate. IGE schools were required to have organized within IGE prior to the 1972-73 school year. The non-IGE schools selected were matched to the IGE schools

in terms of school size, percentage of majority, the percentage of disadvantaged, the per pupil expenditure and the district. Data collection occurred in March of 1973, so most IGE schools would have been at the end of their second year of implementation. The instrumentation used was the Organizational Climate Index developed by Stern and Steinhoff which measures several dimensions of organizational climate. Findings indicated that in IGE schools there was significantly less control press and inhibition. Conversely IGE schools showed more achievement motivation and more orientation toward change and toward science. Similarly, the intellectual climate was shown to be stronger in the IGE schools. Finally, impulsiveness and disorder were more evident in the IGE schools than the non-IGE schools. These data must be interpreted with caution, however, as the percentage of return of the questionnaires was low.

Bradford, E. F. A comparison of two methods of teaching in the elementary school as related to achievement in reading, mathematics and self-concept of children. Unpublished Ph.D. dissertation, Michigan State University, 1972.

The purpose of this study was to compare an IGE with a non-IGE school on reading and math achievement and student self-concept. The IGE and non-IGE schools were matched on the basis of sex, socio-economic status and overall reading and math achievement scores. The degree of implementation in the IGE school was not indicated. However, the extensive discussion of inservice activities related to implementation of IGE indicates that the IGE school was early in its implementation phase when the study took place. Children in grades 1, 2, and 3 were given the Metropolitan Achievement Test and the Piers-Harris Children's Self-Concept Scale. A total of 299 IGE students and 93 control school students were tested. Additionally, the attitudes of students, parents, and teachers toward individually guided education were sought. Findings indicated that there was significantly higher math achievement and student self-concept in the IGE school as compared to the control school. No differences were apparent on reading achievement although the IGE school showed marginally greater scores. Attitudes of teachers and parents toward IGE overall were positive. Attitudes of students were positive toward some aspects of IGE and negative toward others.

Burtley, N. A comparison of teacher characteristics and student achievement in Individually Guided Education (IGE) and traditional inner-city elementary schools. Unpublished Ph.D. dissertation, Michigan State University, 1974.

The purpose of this study was to compare an IGE and a non-IGE school on teacher characteristics and student achievement in inner-city schools. The teachers and students in both schools were tested three times over two years. A total of 32 teachers were given

the Group Dimensions Descriptions Questionnaire in October 1971, June 1972, and October 1973. A total of 292 second and third grade students were given the Matropolitan Achievement Test Battery in May 1971, 1972, and 1973. The study spanned the first two years of IGE implementation in the IGE schools. Therefore the degree of IGE implementation in the experimental school was not high. The two schools were matched in terms of the same district, matching achievement scores, socioeconomic status, percentage of welfare, median income level, pupil ethnicity, percentage of students eligible for free lunch, school size, and school enrollment. Findings indicated that IGE encourages more teacher cooperation and compatibility than a control school. Further, individualization results in achievement gains in both reading and math at both second and third grade levels.

Center for Educational Policy and Management. Management Implications of Team Teaching. Project Report No. 2, Eugene, Oregon, University of Oregon, October, 1973.

This study reports a comparison of four multiunit Wisconsin schools and four control schools on teacher attitudes and interactions. Information on degree of implementation and matching characteristics of the sampled schools was not available. Findings indicated that IGE teachers were significantly different from the control school teachers in the following characteristics: IGE teachers showed a greater task orientation interaction than control teachers, more involvement in school-wide decisions than control teachers, and expressed greater job satisfaction than control school teachers. This report was abstracted from a secondary source as a full copy is not yet available.

Claytor, A. The relationship between teachers' beliefs and practices in IGE schools and evidences of classroom behavior as compared in IGE and non-IGE schools. Rutgers University, 1974.

This study sought to investigate the relationship between teacher beliefs and teacher classroom practices. Sixty-three teachers from four elementary schools and 30 prospective teachers participated in the study. Thirty-three of the teachers were from IGE schools, 30 were from non-IGE schools. Degree of implementation of the IGE schools and any matching requirements were not given. Classroom teachers were observed and rated according to the Classroom Observation Rating Scale. Additionally, teachers filled out a corresponding questionnaire. Prospective teachers filled out only the questionnaire. Groups were compared on the basis of their open beliefs and their practices. Beliefs and practices were correlated and t-test comparisons were made among the three groups. Information was not available on the

questionnaire or on the scoring procedure. Findings indicated that teachers are more open in their beliefs than they are in their practices. Overall, IGE teachers were more open in both beliefs and practices than traditional teachers. There was a significant negative correlation found between the years of experience and open practices for traditional teachers.

Edwards, F. H. A study of affective change in elementary schools implementing Individually Guided Education. Unpublished Ph.D. dissertation, University of North Carolina at Chapel Hill, 1972.

This paper reports the findings of a study focusing on teacher and student attitudes in IGE schools. Six schools were studied, three IGE and three non-IGE. Schools were matched in terms of the same community, the number of pupils, and the size of the faculty. A total of 394 sixth grade students as well as the entire faculties of all schools were studied. A limitation of this study is that it was impossible to determine the level of implementation of the IGE schools. Teachers were administered the Kerlinger Attitude Toward Education Scale VII. Students were administered the /I/D/E/A/ Attitude Scales. Findings indicated that student attitudes toward school and toward their peers were more positive in IGE schools. Furthermore, IGE teachers were overall more progressive and less traditional than control school teachers.

Essig, D. M. The effects of a multiunit differentiated staffing organization upon teachers' attitudes and instructional programs. Unpublished Ph.D. dissertation, University of Oregon, 1971.

This paper presents the results of a study of the impact of IGE/MUS on the instructional program and attitudes of teaching staffs in two IGE schools in Oregon. Instructional programs in two IGE and two non-IGE schools were assessed prior to implementation of IGE in the two IGE schools in the sample. Instructional programs were then reassessed one year later, in 1971. Attitudes were assessed by means of an author-developed attitude survey which was based on Osgood's Semantic Differential. The results are descriptive as no tests of significance were run. Findings indicated that the IGE schools showed certain changes (e.g., teaming) in the organization for instruction which were not shown in the control schools. Further, greater involvement by IGE teachers in decision-making related to planning and development of the instructional program was also shown. No differences were found in teachers' attitudes in IGE and non-IGE schools.

Flournoy, L. Untitled achievement data. 111th Street School, Los Angeles, 1975.

Although a complete copy of this report is not available at this time, preliminary achievement data for pupils in 111th Street School are available. Reading and math achievement were assessed for each of grades 1 through 6. Data were collected in the 1972-73 school year. Grades 1 through 3 were given the Cooperative Primary Test. Grades 4 through 6 were given the CTBS. Some groups were matched, others were not. Expected gains ranged from .7 to 1.0 at all grades. Findings indicated that grade level equivalent gains expected after IGE implementation were achieved or exceeded in all except the sixth grade (and even the sixth grade level approached the goals).

Gervase, D. J. and Lindia, A. Final report: The evaluation of the IGE program in the Windsor Public Schools (reading): School year 1973-74. Windsor Public Schools Report, Windsor, Connecticut, 1974.

The purpose of this report was to replicate the evaluation of the effectiveness of the reading program in the Windsor Public Schools. Comparisons were made on the basis of standardized achievement tests as well as comparisons between expected and achieved reading scores. The Culture Fair Intelligence Test and the Gates MacGinitie Reading Test were given in March 1974. Expectancy was determined by the formula: (years in school x IQ) + 1 = expected grade performance. Results showed that pupils at each of years 8-11 showed higher reading achievement than was expected. These results must be interpreted with some caution, however, as it appears that an independent t-test was used on dependent scores.

Gresso, D. W. Individually Guided Education and organizational climate. Unpublished Ph.D. dissertation, University of Missouri at Columbia, 1974.

The purpose of this study was to compare IGE schools showing a high degree of implementation with IGE schools showing a low degree of implementation on organizational climate. The population studied was all IGE schools working with /I/D/E/A/ in 1973-1974. Criteria for sample selection were that IGE schools had implemented IGE for at least two years. Additionally, a high implementation school was defined as one that had met over 66% of /I/D/E/A/'s 35 outcomes. A low implementation school had met less than 34% of the 35 outcomes. A total of five high and five low implementation schools were chosen. The organizational climate description questionnaire developed by Halpin and Croft

in 1963 was the instrument used. Findings indicated that high implementation schools were more open than low implementation schools as perceived by the teachers. Additionally, high implementation schools showed greater open autonomy than low implementation schools as rated by the teachers. Finally, principals in high implementation schools were less aloof and showed more thrust and consideration than principals of low implementation schools.

Hacket, J. and McKilligin, G. A study of the Multiunit/IGE elementary schools. Janesville, Wisconsin, August, 1972.

This study compared two multiunit and two transitional schools within the Janesville, Wisconsin school district. Participating schools were matched in terms of SES, mean IQ scores for the school, and building design. Degree of implementation of IGE was not reported. Achievement scores for second and sixth graders on the Metropolitan Achievement Tests were higher in the multiunit schools with the exception of the spelling sub-test. Additional findings indicate that multiunit schools have a lower per pupil cost for personnel than the traditional schools. Finally, positive teacher, pupil, and parental attitudes were reported for the multiunit school. A possible limitation of the attitude data reported was that there is no indication that this data was collected from the traditional schools.

Harmon, J. A. and Tylke, L. V. A comparison between an Individually Guided Education school and a more traditional elementary school on attitudinal and personality variables. Paper presented at WERA, 1975.

This paper reports the results of a comparison of an IGE school with a non-IGE school on student achievement, student attitude toward school, student attitude toward themselves, and student attitude toward others. The IGE school had been operating for 2-1/2 years. Schools were matched by socioeconomic status and IQ. Twenty-three students in each of grades one through six in each school participated in the study. Procedure was as follows: Both faculties were given the CSE 106 Educational Objective Cards to be rated. A subsample of highly rated objectives was chosen for the study. Progress toward these objectives was measured by two instruments--the California Test of Personality, and AMASTY--About Myself and School This Year. Results showed no clear differences between the IGE and non-IGE school. A possible limitation of this study, however, is that the measurement instruments may not have been appropriate for the objectives chosen. A subsequent study compared achievement in the two schools and again found no differences.

Herrick, H. S. The relationship of organizational structure to teacher motivation in multiunit and non-multiunit elementary schools. Technical Report No. 322, 1974.

The major purpose of this study was to examine the relationship of organizational variables to teacher motivation. A secondary purpose was to determine the differences, if any, which exist between organizational structures of multiunit and non-multiunit schools. A random sample of 40 multiunit schools in Wisconsin and a further random sample of 40 schools in Wisconsin that had not implemented IGE were chosen. Multiunit schools were required to have been multiunit for at least one year, and to have been judged adequately multiunit by the Department of Public Instruction. Within schools chosen, a random sample of 15 teachers was selected to provide the data. The major findings of the study were that there were no significant differences between multiunit and non-multiunit schools in size, complexity, and formalization. Multiunit schools were shown to be less centralized, less stratified, and had more highly motivated teachers than non-multiunit schools. School size and centralization were significant predictors of teacher motivation in both multiunit and non-multiunit schools.

Ironside, R. A. Process evaluation of the 1971-72-73 nationwide installation of the Multiunit-IGE Model for elementary schools. Paper presented at WERA, 1975.

This report presents some of the findings of a process evaluation of the installation of 250 IGE/MUS schools. During the first year of implementation an attempt was made to document training and installation as well as to describe the extent of the implementation in the schools. Installation in the schools was measured by the performance objectives developed by the R & D Center. Four basic elements consituting several of the objectives were the criteria indicating satisfactory implementation by the middle of the first year. These four elements were: an active IIC, use of the IPM in one subject, a fully unitized school, and a multiaged organization. Data were gathered through questionnaires, interviews, site visits, and study of existing and emerging documents of all sorts. Findings indicated that in the early stages of implementation it is difficult to determine the date or degree of "commitment." However, the criteria of satisfactory implementation was attained by a large proportion of the schools at the end of the first half year. Further, considerable variation was found both within and between schools in the degree of implementation of both the multiunit and IGE patterns. Additional findings indicated that teacher roles may be difficult to assume at once, and individualization was found to be one of the least attained objectives. Finally, with respect to implementation, findings indicated that use of IGE/MUS is not tied to the building structure. However, support was needed to effect implementation.

Ironside, R. A. A supplement to the 1971-72 nationwide installation of the IGE/MUS model for elementary schools--a process evaluation: The fall 1972 follow-up. Princeton, New Jersey, Educational Testing Service, 1973.

The purpose of this study was to determine the implementation status of IGE schools one year after the original nationwide installation study. A major question of interest was whether IGE schools are different in the second year of implementation. This study was considerably smaller in scope than the original. Only some of the IGE schools were studied, no attempt was made to compare children on either achievement or learning, and the same criteria were used as in the main study but truncated instruments were employed. Findings indicated that by the second year most schools meet the four criteria of an active IIC, multiage grouping, individualized instruction and full unitization. Further, all schools identify themselves with IGE in the second year although wide variation in implementation practices were shown. A wide need for technical assistance in implementation was expressed by most schools. Finally, it was concluded that it is still difficult to determine gains in both reading and math at both second and third grade levels.

Joyal, L. H., Jr. A comparison of the types of learning patterns of students in a self-contained and a multiunit elementary school. Unpublished Ph.D. dissertation, University of Wisconsin-Madison, 1973.

This paper presents the results of a three-year study (1968-1970) of the size and variety of instructional groups, pupil self-direction, and variety of learning materials used in IGE and non-IGE schools. Subjects were 25 children in grades 1 through 6 in a single school. In 1968 the school was self-contained, in 1969 they implemented IGE, and in 1970 they had been two years into IGE. Three students at each grade level were observed individually for fifteen minutes each year. Students were rated on the Observation of Students' Learning Style Form developed at the R & D Center in 1967. The types of activities the students engaged in were recorded each minute. Changes in the utilization of instructional materials and audio visual equipment, in the number of subjects working in a specified classroom area, in the size of learning groups, in the frequency of teacher-pupil interactions, and in the frequency of teacher-directed learning activities were predicted. Results showed that there was an increase in the number of students using a wider variety of instructional materials and audio visual equipment under IGE. Further, a greater variety in size of learning groups was shown, as well as a greater variety in the number of students working in a specified classroom area. Finally, the frequency of teacher-pupil interactions increased as did the frequency of teacher-directed learning activities under IGE.

Kelley, E. A., Wood, F. H., and Joekel, R. Teacher perceptions of school climate and the implementation of Individually Guided Education (IGE). University of Nebraska, 1973.

This study investigated teacher perceptions of the climate in 545 IGE schools in their first, second, and third years of implementation. The sample was stratified by location (rural, suburban, urban, and inner city), and length of implementation. Teachers in the 545 schools responded to the Organizational Climate Index. Findings indicated that the climate in IGE schools was more open in the second year of implementation than it was in the first. However, the climate in the third year was not different from the climate in the first year, suggesting a Hawthorne Effect. One limitation of this latter finding, however, is that there were only six schools in the third year sample.

Kennedy, F. M., et al. Three year evaluation: The multiunit elementary school and individualization. Cedarburg, Wisconsin Public Schools, August, 1972.

The paper reports a description of the changes occurring in three Cedarburg schools since the fall of 1969 when two schools became IGE, and a third developed an individualized study program as a result of a Title III grant. Achievement, as measured by the Iowa Tests of Basic Skills, showed a 7% increase in the 1972 scores for grade 3 when compared to the scores in 1966, a 1% decrease for grade 4, and a 5% increase for grade 5. Results of a pupil attitude survey, a secondary student visitation study, and comments from visiting educational professional personnel are also reported. Possible limitations of the study include the fact that pupil attitude and teacher time allocation data were collected at only one school and used as indicative of what was happening at all three schools. Further, there was no attempt to assess the level of IGE implementation in any of the schools.*

Klausmeier, H. J., Quilling, M. R., and Sorenson, J. S. The development and evaluation of the Multiunit Elementary School 1966-1970. Technical Report No. 158, 1971.

This paper summarizes some early evaluation data regarding IGE schools. Several procedures were followed in the formative evaluation of IGE. Observations of the I & R and IIC operations were made. Structured interviews and questionnaires were used in both the IGE schools and the control schools. Criterion-referenced

*This report includes a prohibition against making the narrative or data public without express written permission.

tests in reading were administered to children in the IGE schools before the reading program was introduced, and readministered the following year. Findings indicate that I & R units met their performance criteria reasonably effectively, although there was variability among units. Further, the majority of IICs were seen to be functioning reasonably well. Interdependence relationships in these three multiunit schools and three control schools were assessed (Pellegrin, 1970 abstracted in this paper). Further there was some indication of higher student achievement in reading.

Mantzke, J. W. An analysis of the effectiveness and satisfaction of teachers, principals, and superintendents who function within undifferentiated and differentiated (IGE/MUS) staffing structures in the State of Wisconsin. Unpublished Ph.D. dissertation, University of Wisconsin-Madison, 1973.

The primary purpose of this study was to compare the effectiveness and satisfaction of principals and teachers functioning within undifferentiated and differentiated organizational structures. The study sample was chosen from the Multiunit School Directory. Those schools having implemented IGE for at least two years were considered for inclusion in the study. All schools who fit this criterion and who were willing participated in the study. A total of 31 schools was chosen. Five teachers, the principal, and the superintendent of each school were asked to respond to the principal effectiveness questionnaire. In order to select the control schools, the IGE schools were grouped according to the Wisconsin Education Association classification of school districts. This classification is based on the number of professional workers in the district. Control schools were chosen from Wisconsin to be comparable by number of professional workers to the IGE schools chosen. Findings indicated increased satisfaction of principals in IGE schools with regard to supervision of instruction, curriculum development, student guidance, staff relationships, and securing and managing fiscal resources.

Nelson, R. G., Junker, L. K., and Fischbach, T. J. Learning climate in IGE/MUS-E schools. Technical Report No. 213 revised, 1975.

The major question investigated in this study was whether IGE/MUS organizational structures resulted in a characteristically different learning climate than a traditional self-contained structure. To answer this question, pupil attitudes toward (a) themselves as learners, (b) other pupils, (c) teachers, (d) instruction, and (e) school were assessed. Thirteen IGE schools and twelve non-IGE schools served as the sample of this study. IGE schools were required to be fully functioning multiunit schools and to have used IGE for at least two years. Matching characteristics were not given. Findings indicated no differences between IGE and non-IGE schools on the general measure termed learning climate. However, students in IGE schools showed a higher self-concept than students in non-IGE schools.

Olszewski, R. W. The effect of a multiunit/open space school structure on teacher behavior. Unpublished Ph.D. dissertation, University of Notre Dame, 1973.

Two main hypotheses were investigated. First, teachers in IGE schools were expected to show a greater range of teacher behaviors than teachers in control schools. Second, teachers in IGE schools were expected to show more shared teaching behaviors than teachers in control schools. The study sample consisted of one IGE school (in operation for one year) and two control schools (matching characteristics unknown). Two of the four units in the IGE school were selected for study (one primary, one intermediate). Eight teachers were also sampled from two control schools. Each teacher was observed four times for a total of one hour each using a Flanders Interaction procedure. Findings indicated that teachers in IGE schools did not show a greater range of teaching behaviors than teachers in control schools. However, IGE teachers did show an increased sharing in teaching behavior patterns than teachers in control schools.

Paden, J. S. A national evaluation of the /I/D/E/A/ change program for IGE. Belden Associates, Dallas, Texas, 1975.

This study was designed to assess the attitudes of administrators, teachers, students, and parents to the implementation of IGE. The study represents a two-year data collection effort in IGE schools implemented by /I/D/E/A/. Data were collected from May to July 1973 and from May to July 1974. Schools participating in the study had implemented IGE one, two, or three years prior to the collection of the data. Four questionnaires assessing the overall expectations of administrators, teachers, parents, and children were given. Comparisons were made in the attitude of individuals in schools having high levels of IGE implementation as compared to low levels of IGE implementation. Additional comparisons were made between those individuals in urban areas and those in non-urban areas, between those in mostly white IGE schools and those in non-white IGE schools, and between those in schools implementing IGE prior to 1972 and those who started IGE after 1972. Comparisons of the IGE schools with a control group were not made. Attitudes of the four groups toward IGE were generally positive, with positive attitudes increasing as the length of time spent in IGE and/or the number of /I/D/E/A/ outcomes increased. Finally, it was found that implementation of IGE can result in perceived teacher and administrator overloads depending on the implementation schedule employed.

Parsons, F. R. (Principal). "What happens when they get to the junior high?" Evaluating an IGE school in the affective domain. Jefferson Elementary School Report, Menasha, Wisconsin.

This report presents the results of a self-evaluation of two schools in Menasha, Wisconsin, that implemented IGE in 1969-1970. Several approaches were taken. First, the schools attempted to show that they were better than they were before implementing IGE. They sent questionnaires to parents, students, and teachers. Although no data are given, they report that the results of these questionnaires were supportive. A second approach was to investigate what happened to their IGE students when they reached the junior high, which receives both IGE and non-IGE school students. A questionnaire was developed assessing decision-making, self-responsibility, self-concept, and interpersonal relations. All junior high teachers rated each student on all of the IGE dimensions listed above. Junior high teachers did not know which students were IGE and which were non-IGE. Each student was rated by approximately three to five teachers. Findings indicated that on all dimensions IGE students were rated higher. Finally, an attempt was made to identify the students in the Menasha schools who might have potential performance or adjustment problems in the schools. Such factors as poverty level, intelligence, family problems, learning disability, emotional problems and social adjustments were rated. It was found that the IGE schools contained 25% of the students in the district yet the IGE schools contained from 40 to 59 percent of the students with potential problems.

Pellegrin, R. J. Some organizational characteristics of multiunit schools. Working Paper No. 22, 1969.

The purpose of this study was to provide an organizational profile of multiunit schools in terms of interdependency relationships. The study compared four IGE with four non-IGE schools. Three of the four IGE schools were fully unitized in the year of testing. The fourth was eventually dropped as insufficiently multiunit. A questionnaire and interview procedure was used to study the interdependency relationships (work-related interactions) among the staff. Findings indicated that the interdependency relationships in IGE schools were mainly confined within units, while in the non-IGE schools they were mostly confined to the grade levels. Fewer individual decisions were made in the IGE schools, while more group decisions were made. In non-IGE schools decisions were made primarily by individual teachers with the principals. An analysis of influence hierarchies indicated that in IGE schools, principals and unit leaders are very influential. In non-IGE schools the principal is the most influential individual.

Piedmont Project Reports, Piedmont, North Carolina.

Copies of these papers are unavailable although they have been ordered.

Quilling, M. R. and Sorenson, J. Student achievement and attitudes in instruction and research units in Winslow Elementary School, Racine, Wisconsin. A Two-Year Report, 1967-1968 and 1968-1969. Working Paper No. 96, 1972.

This paper presents the results of a two-year study of the achievement of pupils in Winslow Elementary School. The study was undertaken in the fall of 1967 as the multiunit organization was implemented. Reading and math achievement of Winslow pupils was compared with that of a matched control school (matching characteristics unknown). Mixed results were obtained. In the first year, first grade children in the IGE school outperformed control pupils. However, unitized third graders progressed less in reading than controls. During the second year of the study, reading achievement improved. Also there was some evidence that non-transient pupils in the multiunit school progressed more than did a comparable control group in the control school. Overall, however, margins in favor of one school were counterbalanced by those of the other school on different measures. The results of the study indicate that academic progress is not different in a multiunit and control school after two years of program implementation.

Richardson, E. R. A study of the changes in role perceptions and role behaviors of principals in Individually Guided Education/Multiunit elementary schools. Unpublished Ph.D. dissertation, Auburn University, 1972.

This paper reports the results of a study assessing the changes in the role perceptions and role behaviors of elementary school principals involved in implementing IGE. Of particular interest were the nature of the interactions between the principal and the professional staffs in the public school settings. Twenty-three elementary schools in Alabama served as the sample. Twelve schools were in the first year of implementing IGE, and eleven of the schools were not involved in an IGE program and were classified as control (matching characteristics, if any, were not given). The instruments used were selected from an earlier study of the principalship performed by Gross and Herriott. Findings indicated that there were no differences between IGE and non-IGE schools with one exception. There was more congruency between the perceptions of the principals and the perceptions of the professional staffs as to role behaviors in IGE schools.

Schneiderhan, R. M. A comparison of an Individually Guided Education (IGE) program, an Individually Guided Instruction (IGI) program and a traditional elementary educational program at the intermediate level. Unpublished Ph.D. dissertation, University of Minnesota, 1973.

The purpose of this study was to compare IGE, IGI, and traditional schools on achievement, student attitudes toward schools, and student self-concept. Two schools in Roseville, Minnesota, were tested. One entire school was in the IGE experimental program. The other school placed one-third of the students in the IGI experimental program and the remaining two-thirds were assigned to self-contained classrooms. Both the IGE and IGI programs were new during the period of testing. Schools were matched only to the extent that they were from the same district. Teachers in both schools volunteered for the program of their choice. Students in grades 4 through 6 were given the Iowa Test of Basic Skills, the IOX School Sentiment Index, the IOX Self-Appraisal Inventory and Odis Lennon IQ test in the fall and spring of the 1971-72 school year. Findings indicated no differences in achievement, attitude, or self-concept among the three programs.

Walter, J. E. The relationship of organizational structure to organizational adaptiveness in elementary schools. Technical Report No. 276, 1973.

The purpose of this study was to examine the organizational structures of elementary schools and to analyze the relationship of these variables to the adaptiveness of elementary schools. Thirty-eight schools (20 MUS, 18 non-MUS) participated in the study. Data were gathered using a questionnaire distributed to the principals and 10 randomly selected teachers in each school. IGE schools in the sample were required to meet the following criteria: Multiunit organization had been implemented at least two years, principal had been in the building at least three years, a majority of the unit leaders had been unit leaders for two years, and there were more than ten teachers in the building. Non-multiunit schools were matched in terms of district, SES, and school size. Findings indicated that while multiunit and non-multiunit schools were not substantially different with regard to the organizational structures, multiunit schools were significantly more adaptive.

Watkins, J. E., Jr., Holley, F. M., et al. 1973-74 evaluation report: Individually Guided Education (IGE) program. Department of Educational Development Report, Austin, Texas, 1974.

This report presents the findings of an evaluation of IGE in the Austin Independent School District in 1973-74. All IGE schools had implemented IGE in the previous year. Eleven IGE

schools and 11 control schools were compared on the degree of implementation of various outcomes or characteristics associated with IGE. Classroom observations indicated that, on the whole, the 11 IGE schools exhibited greater degrees of implementation of these characteristics than did the control schools. Additional teacher questionnaire data in part verified this finding. Considerable variation was found among the IGE schools (but this is not surprising in light of the fact that overall implementation was not controlled). Parents and staff generally expressed favorable attitudes toward IGE. Staff members, however, expressed some dissatisfaction with the level of support and training they received. No differences were found on various affective and cognitive outcomes between IGE and non-IGE schools. Focused case studies of randomly selected students indicated striking differences in how IGE and comparison school students spent their days.

Watkins, J. E., Jr., Holley, F. M., et al. 1974-1975 Final Report: Individually Guided Education (IGE) program. Department of Educational Development Report, Austin, Texas, 1975.

This report presents the results of a continuation evaluation of the implementation of IGE in the Austin Independent School District. The initial year of the evaluation took place in the second year of program implementation in 1973-74. Evaluation efforts continued to focus on the achievement of program inputs, processes, and outcomes in the 11 IGE and 11 matched comparison schools chosen for the first year study. Due to the fact that control over the degree of implementation of IGE was not obtained, the major variable under consideration in this evaluation may simply be the label "IGE." Teacher and parent questionnaires, the CAT, self-concept measures, reading and math achievement, and student behavior ratings were used in the study in addition to classroom observations. No differences were found between the IGE and the control schools.

APPENDIX B

REASONS FOR ELIMINATING SCHOOLS FROM THE FINAL MATCHED PAIRS

The procedure for selecting the control schools followed as closely as possible that used by the R3 students. The superintendent of the districts containing an experimental IGE school were contacted in order to enlist their help in identifying a matched non-IGE school comparison. Superintendents--or the IGE school principal if no superintendent was available for the district--were asked to identify a non-IGE school as similar as possible to their school in size, district, socio-economic status, racial mixture, and overall age and experience of teaching staff. Several superintendents, as well as principals of the non-IGE schools contacted, asked for written information pertaining to the scope and intent of the study. When requested, this information was sent, and where it was felt necessary by the superintendents or the principals of the non-IGE schools, this information was taken to the school boards or other individuals from whom permission was required. Where this information was not requested it was not sent.

The following are the reasons why specific schools were dropped from the final matched sample.

School #139. This was the only elementary school in the district. The superintendent suggested several other districts to approach; several of them were contacted. Some had job action problems and so declined to participate. Others simply found no principal that was interested in the study. Finally, time constraints made it impossible to send background information and wait for school board approval.

School #694. There is no superintendent in this district and the IGE principal suggested contacting a parochial school in the district. The principal of the parochial school felt they were not a good match and the faculty of the school was against participation. Several other suggestions were followed up on. However, the best matching school had to present the study to the school board for approval. The conclusion of the board as well as the principal was that there was too much testing going on for the children in that school at the present time and they declined participation.

School #866. The superintendent suggested two schools, one of which was a better match than the other. The best match declined because all elementary schools in the district were to be evaluated that year and he felt that there would be too much testing for students. Other schools suggested were simply not good matches. Finally, there was not enough time to search for further schools.

School #618. This school was rejected because the school is half IGE and the rest is self-contained. Further, there was no apparent interaction of this school with any other school in the area. Both of these conditions violated the minimal requirements set by the Evaluation Section.

School #400. This school was rejected because reading regrouping was done by classroom--not by skill groups or individuals, as was minimally required.

School #688. This school failed to meet minimal conditions because the IPM in reading was not used schoolwide and the IPM in math had only been in use since September of 1974 (less than one year at the time of testing).

School #754. This school was rejected because they stated that teacher judgments were the only assessment techniques used to implement IPM in math. Furthermore, the school had no permanent unit leader last

year--they alternated. Finally, a call to a local consultant knowledgable in IGE indicated that the school was not really IGE throughout and that it was not a good example. She suggested we choose any other school in the area (which was not an option).

School #772. This school was rejected because they saw themselves as a modified IGE school. The IIC met only twice per month and they had what they termed an "informal" IPM in reading. These conditions constituted failure to meet minimal criteria.

School #142. This school was rejected because math was individualized only in some classes.

School #932. This school was rejected because the whole school was one unit, and reading had been individualized for less than two years.

School #740. This school was a pilot school, and there was no time to even attempt to match it.

School #725. This school was rejected because it was tested for the pilot. Additionally, it was not fully unitized (some classrooms were self-contained).

School #47. This school was rejected because the R3 students were tested in only one grade level--the fourth grade--and because they had a rotating unit leader.

School #447. This school was rejected because the school was not fully unitized, the IIC met only twice per month and the R3 students were testing only one (fourth) grade.

School #530. This school was rejected because some classrooms were self-contained, the IIC met only twice per month, and they had an unorthodox unit structure.

School #76. This school was rejected because the whole school was one unit, and because it was too difficult to match a school containing only grades four to six (there was no control over the IGE-ness of grades K to three).

School #634. This school was rejected because there was only one school in the district that was a fairly good match and this school declined to participate. Further suggestions for other schools came too late to be followed up on.

School #407. This school was rejected because the best matches refused participation and the refusals came too late to identify and contact other schools.

School #85. This school was rejected because unit leaders rotated annually.

School #456. This school was rejected because it was highly ethnic and there was no other school similar in race, socioeconomic status, and district area.

School #12. The school superintendent turned us down because the schools were doing too much testing already. The teachers were unhappy about the amount of testing, and they would have had to have seen all of the instruments beforehand. Consensus in the district was that no school would have agreed to another round of testing, even if allowed full review of the study and instruments.

Schools #445 and #257. Both of these were large city schools. These were rejected because there wasn't sufficient time to work through the administrative layers necessary to gain approval from a large city school district.

Other schools rejected were eliminated because the IGE schools were identified so close to testing time that it was impossible to approach the districts, contact the schools, and receive permission.

APPENDIX C

COPIES OF R3 INSTRUMENTS AS ADAPTED FOR THE PRESENT STUDY:
PRINCIPAL AND TEACHER FORMS

PRINCIPAL FORMS

INSTRUCTION SHEET

We sincerely appreciate your willingness to cooperate in this study. Your assistance in the project is vital in assuring our success.

In our telephone conversations we identified specific classrooms that would participate in the study. There is a packet of materials for each of the teachers and the principal. Each of the packets is so designated on the outside of the envelope. The following steps are suggested as a guide to facilitate the completion of the packets.

1. Distribute the envelopes containing the questionnaires to the staff members selected.

2. Explain that each packet will contain a set of general instructions along with specific instructions on each instrument.

3. Remind the staff members that the questionnaires should be completed independently. Each person should respond to all the questions in order to give an accurate picture of your school.

4. The envelopes provided for each person are to be used when the questionnaires have been completed. Each person should seal the envelope when all the questionnaires have been completed.

5. The researcher will retrieve each envelope when he/she meets with the unit.

Please encourage your staff to complete each of their instruments prior to the time the researcher comes to the school.

The principal packet contains the following:

1. Background Information and Organizational Survey (Form P) - this instrument contains 19 background items and an organizational structure complexity checklist. The time required to complete this is approximately 10 minutes, but due to individual differences it may take some persons longer and other persons less time. Please read the instruction page for the instrument carefully and when the instrument is completed place it in your envelope, seal it, and retain it for the researcher.

2. School Expenditure Data - this form deals with cost data of the classrooms indicated.

3. Time Allocation of Instructional Personnel - this deals with the utilization of time of the staff. You will find several extra copies of this form. Please distribute these extra copies to any non-certified personnel that work with the specified classrooms. When they have completed their copies please collect them and place them in your packet of completed instruments.

4. Decision Involvement Analysis - (see Teacher Packet--identical to it).

The results of the study will be reported in the form of a technical report, and you will receive a copy of the report when it becomes available from the R & D Center. Let us assure you that when we report the study's findings, there will be no identification of students, staffs, or schools.

Please extend our gratitude to your staff for the time and cooperation they are giving in assisting the Center with this study; and for you interest and help, we are sincerely appreciative. We are looking forward to visiting with you and your staff shortly.

If you have any questions related to the study, please feel free to call us collect at (608) 263-4342. Thank you again.

Sincerely,

Dr. Conrad Katzenmeyer
Director of Evaluation Services

Dr. Linda Ingison and Ms. Deborah M. Stewart
Evaluation Coordinators

Form Approved
OMB No: _____

BACKGROUND INFORMATION AND ORGANIZATIONAL STRUCTURE SURVEY

(Form P)

8

You are participating in a study conducted by the Wisconsin Research and Development Center for Cognitive Learning. The purpose of this instrument is to obtain background data and to determine the nature of the organizational structure in your school.

This instrument to be completed by the principal consists of 19 background items and a complexity check list. Completion of the entire instrument should require about 10 minutes of your time. It is important that all items receive a response as any item left blank will give a distorted picture of your school. All responses will remain confidential and none will be identified by person, school, or school district.

Please answer the question about each item by placing your response in the space provided. Upon completing the instrument, please place it in the envelope provided and hold it for the researcher who will visit your school and pick up your sealed envelope of completed instruments.

Your participation in this study is sincerely appreciated.

Published by the Wisconsin Research and Development Center for Cognitive Learning, supported in part as a research and development center by funds from the National Institute of Education, Department of Health, Education and Welfare. The opinions expressed herein do not necessarily reflect the position of the National Institute of Education and no official endorsement by the National Institute of Education should be inferred.

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BACKGROUND INFORMATION AND ORGANIZATIONAL STRUCTURE SURVEY

(Form P)

Part 1

Directions: Indicate the proper response in the space provided for each question.

___ 1. Highest level of professional preparation completed.

1. Bachelors Degree
2. Bachelors Degree + 16 credits
3. Masters Degree
4. Masters Degree + 16 credits
5. Masters Degree + 32 credits
6. Doctoral Degree

___ 2. Are you presently enrolled in a degree program?

1. Yes
2. No

___ 3. Have you given any presentations or written any articles for professional organizations in the past 5 years?

1. Yes
2. No

___ 4. If yes to above question 3, indicate the approximate number.

___ 5. Sex.

1. Female
2. Male

___ 6. Have you participated in a staff development workshop in the past 2 years?

1. Yes
2. No

___ 7. Indicate the total number of years of your teaching and administrative experience.

___ 8. Indicate the total number of years that you have been a principal in this district.

___ 9. Indicate the total number of years as principal in your present school.

Part II

This index is completed only by the building principal. Please be accurate in your responses.

Below is a list of occupational specialities which might be found in an elementary school. Place the number of people after the occupational specialities which are found in your school and which have qualified people working in the speciality at least 10 hours per week.

District, state agency, and county personnel may also be counted provided they meet the above criteria.

Administrative Staff	No.
Principal	___
Assistant Principal	___
Director of Elementary Education	___
Supervisor (Curriculum and/or Instruction	___
Administrative Intern	___
Other_____	___

Teaching Staff	
Classroom Teacher	___
Physical Education	___
Music	___
Art	___
Special Education	___
Physical or Mental Retardation	___
Teacher Intern	___
Practice Teacher	___
Instructional Aide	___
Other_____	___

Pupil Personnel Staff	No.
Guidance Counselor	___
School Psychologist	___
Social Worker	___
School Nurse	___
Speech Therapist	___
Special Learning Disabilities	___
Attendance Officer	___
Remedial Reading	___
Remedial Math	___
Other_____	___

Auxiliary Staff	
School Secretary	___
Instructional or Clerical Aide	___
Lay Supervisor (Paid)	___
Lay Volunteer (Unpaid)	___
Custodian	___
Cook	___
Bus Driver	___
Audio-Visual	___
Other_____	___

SCHOOL EXPENDITURE DATA

Directions:

1. This form may be completed by:

   The school principal if accounting data for the school are available in the principal's office

   or by

   The school district's superintendent or business manager if accounting data for each school are available only in the district's central office.

2. The expenditure categories for which data are requested are those found in Financial Accounting for Local and State School Systems (Handbook II in the State Educational Records and Reports Series published by the U.S. Office of Education).

3. Attached to this form are descriptions and definitions of the various expenditure categories.

4. We realize that not all school districts maintain complete financial records on a school-by-school basis. For this reason we are requesting data only for expenditure categories that are most likely to be maintained at the school level. It is hoped that the school or school district will be able to provide reasonably accurate information on the expenditures in these categories for the school.

5. The expenditure data requested are for the 1974-75 school year.

6. If questions should arise concerning the completion of this form, please do not hesitate to call (collect) to Terry Geske at 608/263/4270 or Richard Rossmiller at 608/263/4200.

I. Instruction	Total School
A. Salaries	_____
Principal(s)	_____
Teachers	_____
Other certificated professional staff	_____
Secretarial and clerical	_____
Other salaries	_____

	Total School
B. Supplies and Materials	
Instructional supplies and materials	_____
Other supplies and materials	_____
C. Textbooks, Library and Audiovisual	
Textbooks	_____
Library books	_____
Periodicals and newspapers	_____
Audiovisual materials	_____
Other	_____
D. Other Expenses	
Travel	_____
Expenses of inservice education	_____
Other expenses	_____
II. Operation of Plant	
A. Salaries	
Plant engineers	_____
Custodians	_____
B. Supplies and Materials	_____
C. Utilities	_____
D. Other Expenses	_____
III. Repairs to Plant and Equipment	_____
IV. Capital Outlay	
Replacement of instructional equipment	_____
Addition to instructional equipment	_____

V. General Information:

1. Please indicate the average salary paid the following categories of district employees during the 1974-75 school year.

Elementary school (Grades K-6) teachers _____

Elementary school principals _____

Instructional aides _____

Secretarial and/or clerical personnel _____

2. Fringe benefits represent a significant expenditure item in most school districts. Please estimate as accurately as possible the average cost to the district of the fringe benefits (restaurant, social security, health insurance, life insurance, etc.) provided for the typical employee in each of the following categories during the 1974-75 school year.

Elementary school (Grades K-6) teachers _____

Elementary school principals _____

Instructional aides _____

Secretarial and/or clerical personnel _____

3. School districts sometimes establish guidelines for allocating funds for instructional supplies and materials, textbooks, library books, etc. If your district has such a policy, please indicate the amount allocated per pupil, per teacher, or per school for supplies, materials, etc. or indicate the basis on which such allocations are made.

_____

_____

_____

_____

_____

Definition of Expenditure Categories

Following are specific definitions which should help clarify the costs to be included within each expenditure category:

I. Instruction

Instruction consists of those activities dealing directly with or aiding in the teaching of students or improving the quality of instruction. Examples are the activities of teachers, principals, consultants, or supervisors of instruction, and guidance and psychological personnel.

A. Salaries

Principals - The full-time, part-time, and prorated portions of salaries of principals, assistant principals, and other personnel performing the administrative duties of a principal. Salaries of principals who teach classes are prorated to this account in proportion to the time devoted to the coordination and supervision of the activities of the schools.

Teachers - The full-time, part-time and prorated portions of salaries for all teaching services rendered to pupils in the public schools, including the salaries of substitute teachers.

Other Certificated Instructional Staff - The full-time, part-time and prorated portion of salaries for services rendered by school librarians, television instructional personnel, audiovisual personnel, guidance personnel, psychologists and psychometrists.

Secretarial and Clerical - The full-time, part-time and prorated portions of salaries for secretarial and clerical assistants to instructional personnel.

Other Salaries - The full-time, part-time and prorated portions of salaries for any non-certificated assistants or aides to instructional staff other than secretarial and clerical personnel, such as lay readers, study hall teachers, theme graders, etc.

B. Supplies and Materials

Instructional - Expenditures for all supplies and materials which are actually or constructively consumed in the instructional program, including the freight and cartage costs, are recorded here.

Examples of such supplies include chalk, paper, test tubes, ink, pencils, paint brushes, paints, chemicals, shop supplies for vocational courses, oils, cleaners, music supplies, supplies for operation of equipment used in instructional programs (typewriter ribbons, etc.), workbooks, physical education supplies, printing of classroom materials, periodicals for classroom use (not library).

Other Supplies and Materials - Expenditures for all supplies used by teachers other than those actually used in the instructional program are recorded here. Examples of such expenditures include stationery, postage, desk supplies, etc.

C. Textbooks, Library and Audiovisual

Textbooks - Expenditures for replacement of textbooks furnished free to all public school pupils, bindings and other textbook repairs, and freight and cartage of textbooks. Purchase of textbooks rented to the students are also included here.

Library Books - Expenditures for regular or incidental purchases of school library books available for general use by students. Other expenditures included in this account are costs of binding, other book repairs, and shipping charges for school library books.

Periodicals and Newspapers - Expenditures for periodicals and newspapers for general use by the school library. (A periodical is any publication appearing at regular intervals of less than a year and continuing for an indefinite period.)

Audiovisual Materials - Expenditures for audiovisual materials (not equipment) used in the instructional programs, such as films, filmstrips, recordings, exhibits, charts, maps, and television and radio materials, including the rental of such materials.

Other Expenses - Expenditures for library services in lieu of maintaining a school library and for school library supplies such as paper, pencils, index cards, and other office supplies.

D. Other Expenses

Travel - Expenditures for the travel of all instructional personnel and their assistants, including travel in connection with the everyday instructional activities and travel to conventions, meetings, institutes, and workshops. This includes meals, lodging, registration fees, etc.

Expenses of Inservice Education - Expenses of workshops, professional libraries, convention expenses, reimbursement of expenses for attending summer school and extension courses, etc.

Other Expenses - Miscellaneous expenditures incurred for the instructional program for such things as graduation expenses, assembly speakers, field trips, etc.

II. Operation of Plant

Operation of plant consists of the housekeeping activities concerned with keeping the physical plant open and ready for use. It includes cleaning, disinfecting, laundering, dry cleaning, heating, lighting, communications, power, moving furniture, handling stores, caring for grounds, and other housekeeping activities that are repeated somewhat regularly on a daily, weekly, monthly, or seasonal basis. Operation of plant does not encompass the repair and replacement of facilities and equipment.

A. Salaries

Plant Engineers - The full-time, part-time, and prorated portions of salaries of personnel responsible for supervising the staff servicing buildings.

Custodial - The full-time, part-time, and prorated portions of salaries of custodians, firemen, custodians' helpers, matrons, general utility men, night watchmen, and other such personnel who sweep, clean, polish, mop, care for grounds, operate the heating and ventilating systems, and perform any other housekeeping duties. Salaries of custodians performing maintenance activities during vacation periods should be prorated between this account and Maintenance of Plant.

B. Supplies and Materials

Expenditures for brooms, mops, soap, dusters, electrical fuses, electric light bulbs, fluorescent tubes, paper towels, hand towels, floor wax, bath towels, paper cups, toilet paper, and other such consumable custodial supplies.

C. Utilities

Heat for Buildings - Expenditures for all coal, steam, electricity, gas, gasoline, fuel oil, and wood used for heating, including transportation costs involved. If electricity and gas are used for heating and other purposes and if the bills cannot be divided between heat and other utilities, the expenditure should be recorded under this account.

Gas (Not Heat) - All expenditures for gas for any use other than heating buildings should be recorded here.

Water and Sewage - Expenditures paid to municipal governments for water and sewage service. Include cost of supplies such as chemicals for water or sewer treatment when the school district maintains its own water and sewer system.

Electricity - All expenditures for electricity except electricity used for heating buildings should be recorded here.

Telephone and Telegraph - Expenditures for telephone and telegraph, including rental of the telephone switchboards are recorded here.

D. Other Expenses

Reimbursement of expenses for travel by plant operation personnel in the performance of their jobs and in attending workshops, etc. Meals, lodging, registration fees, etc., are also recorded here.

III. Repairs to Plant and Equipment

Plant maintenance consists of those activities that are concerned with keeping the grounds, buildings, service systems, furniture and equipment in good repair. Repairs to capital items consist of expenditures for contracted services, salaries, and wages of school employees engaged for that purpose, materials, and supplies used in the repair of existing buildings, grounds, service systems, furniture and other equipment. Expenditures which add to existing furniture and equipment inventories and/or include replacements of equipment, major integral units of buildings or mechanical systems and expenditures for site improvement replacements, are not recorded under the Capital Outlay accounts, if they are not a part of a building construction, major remodeling or site improvement project.

The following general guide is suggested for the allocation of expenditures for maintenance of buildings and service systems: Expenditures which are incurred to repair existing partitions walls, ceilings, roof structures, ducts, vents, windows, light fixtures, boilers, etc., which do not result in changes in these kinds of integral units of the buildings, service systems, and the integral unit has not been totally replaced, the expenditure shall be recorded as maintenance. If an integral unit has been replaced in its entirety, and is not a part of a remodeling project, the expenditure ordinarily will be recorded in the Capital Outlay account.

IV. Capital Outlay

Capital Outlay expenditures are those which result in the acquisition of new fixed assets or additions or improvements to existing fixed assets

Instructional Equipment - Expenditures to furnish and equip a newly constructed or remodeled building for instruction are recorded here. Instructional equipment is that used by pupils, teachers, principals and supervisors of instruction in the instructional program and is not a built-in item. Some examples of instructional equipment are: desks, workbenches, shop machinery and tools, musical instruments, typewriters, business machines, phonographs, radios, motion picture projectors, sewing machines, science laboratory apparatus, encyclopedia sets, unabridged dictionaries, physical education apparatus, and other equipment used in the instructional program.

TIME ALLOCATION OF INSTRUCTIONAL PERSONNEL

Instructions:

1. This form is designed to provide information about the utilization of time by selected teachers. The form should be completed by each selected teacher and by the principal.

2. Please estimate as accurately as you can either:

   a) the number of hours per week you typically spend in the various activities listed on this form

   or

   b) the percentage of you time you typically spend in the various activities listed on this form.

3. If you report your allocation of time in hours, the total of the hours in Category II--Direct Instruction of Pupils, and Category III --Activities Other Than Direct Instruction of Pupils, should equal the total amount of time, both in-school and out-of-school, that you devote to your job.

   If you report your time in percentage, the percentage of time in Category II--Direct Instruction of Pupils, and Category III--Activities Other Than Direct Instruction of Pupils, should total to 100%.

4. If you are not involved in a particular activity enter a zero (0).

5. If you are not directly involved in instruction of students, e.g., principal or secretary, you may disregard Section II of the form .

6. If you are directly involved in instruction of students, we are especially interested in the amount or percentage of time devoted to the various modes of instruction (for example, one-to-one, small group, large group, etc.) in the various areas of the curriculum. Your best estimate of the amount or percentage of your time spent in these various activities is sufficient; we do not expect "stop watch" accuracy in your estimates.

I. Please check you position.

_____ Principal _____ Intern

_____ Teacher _____ Unit Secretary

_____ Aide

II. Direct Instruction of Pupils

Direct instruction of students includes those activities in which you are directly involved in teaching students. Examples would include lecturing to a large group of students, showing a film, working with a small group of students on a particular skill, or working with an individual student in a task or giving directions to a student who will engage in independent study.

A. Please estimate the number of hours per week or percentage or time per week that you spend in this activity:

_____

B. Of the time you spend in direct instruction of students, please indicate how that time is allocated among the following curricular areas and modes of instruction:

	Mode of Instruction				
Curriculum Area	1:1	Small Group (3-5 Students)	Class-size Group	More Than One Class	Other
Reading					
Language Arts					
Mathematics					
Science					
Social Studies					
Other					

III. Activities Other Than Direct Instruction of Pupils

No. of Hours/Week or Percentage of Time in This Activity

A. Supervision of Pupils, e.g., recess, lunchroom, playground, etc. _____

B. Planning, e.g., instructional activities for pupils. _____

C. Testing/Assessing/Evaluating, e.g., activities associated with determining progress of pupils. _____

D. Recordkeeping, e.g., maintaining up-to-date records on each pupil's progress. _____

No. of Hours/Week or Percentage of Time in This Activity

E. Inservice Training, e.g., school-wide or system-wide activities designed to promote professional development of the staff. _____

F. Clerical/secretarial, e.g., typing tests and instructional materials, correcting papers and tests, mimeographing or duplicating materials, and similar activities. _____

G. Administrative, e.g., activities such as supervision of instruction which support the instructional program but are not directly involved with it. _____

H. Other, any activities not identified in the above categories (please specify). _____

_____

_____

_____

_____

TEACHER FORMS

INSTRUCTION SHEET

We sincerely appreciate your willingness to cooperate in this study. Your assistance in the project is vital in assuring our success. The following directions are for your assistance in filling out the enclosed questionnaries.

1. In this packet you will find your instruments. The entire packet will take approximately 2 hours of your time. Let us stress that you do not have to complete all the instruments at one time and there is no specific order in which they have to be completed. Each instrument may be completed separately and the time involved is printed in the instruction sheet on each instrument.

2. Please read the specific instructions printed on the front page of each instrument.

3. It is important that each instrument be completed prior to the arrival of the researcher and that each question be responded to in order to give an accurate picture of your school.

4. As each instrument is completed place it in the envelope provided and when all have been completed seal the envelope and retain it until the researcher arrives in your school.

5. The researcher will retrieve each envelope when he/she meets the unit.

6. This packet contains the following:

   a. Background Information - this contains background questions and requires approximately 5 minutes to complete.

   b. Principal Leadership Assessment - this consists of 24 questions measuring the leadership style of your principal and requires approximately 10 minutes to complete.

   c. Job Satisfaction Survey - this contains 50 questions concerning your satisfaction with various aspects of your job and requires approximately 30 minutes to complete.

   d. Time Allocation of Instructional Personnel - this deals with the utilization of time of the staff and requires approximately 20 minutes to complete.

   e. Decision Involvement Analysis

We appreciate the time and cooperation you are giving in assisting the Center with this study. Let us assure you that your responses to these instruments will never be identified.

Sincerely,

Dr. Conrad Katzenmeyer
Director of Evaluation Services

Dr. Linda Ingison and Ms. Deborah M. Stewart
Evaluation Coordinators

(608) 263-4342

Form Approved
OMB No: _____

BACKGROUND INFORMATION AND ORGANIZATIONAL STRUCTURE SURVEY

You are participating in a study conducted by the Wisconsin Research and Development Center for Cognitive Learning. The purpose of this instrument is to obtain background data and to determine the nature of the organizational structure in your school.

This instrument is to be completed by teachers, and consists of 18 background and complexity items and 20 stratification and formalization items. Completion of the entire instrument should require about 20 minutes of your time. It is important that all items receive a response as any item left blank will give a distorted picture of your school. All responses will remain confidential and none will be identified by person, school, or school district.

Please answer the question about each item by placing your response in the space provided. Upon completing the instrument please place it in the envelope provided and hold it for the researcher who will visit your school and pick up your sealed envelope of completed instruments.

Your participation in this study is sincerely appreciated.

Published by the Wisconsin Research and Development Center for Cognitive Learning, supported in part as a research and development center by funds from the National Institute of Education, Department of Health, Education and Welfare. The opinions expressed herein do not necessarily reflect the position of the National Institute of Education and no official endorsement by the National Institute of Education should be inferred.

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BACKGROUND INFORMATION AND ORGANIZATIONAL SURVEY

Part I

Directions: Indicate the proper response in the space provided for each question.

_____ 1. Highest level of professional preparation completed.

1. Bachelors Degree
2. Bachelors Degree + 16 credits
3. Masters Degree
4. Masters Degree + 16 credits
5. Masters Degree + 32 credits
6. Doctoral Degree

_____ 2. Are you presently enrolled in a degree program?

1. Yes
2. No

_____ 3. Have you given any presentations or written articles for professional organizations in the past 5 years?

1. Yes
2. No

_____ 4. If yes to question 3, above, indicate the approximate number

_____ 5. Sex.

1. Female
2. Male

_____ 6. Have you participated in a staff development workshop in the past 2 years?

1. Yes
2. No

_____ 7. Indicate the total number of years of your teaching experience.

_____ 8. Indicate the total number of years that you have been a teacher in this district.

_____ 9. Indicate the total number of years as a teacher in your present school.

_____10. Indicate the number of district committees of which you are a member (i.e. curriculum, in-service, etc.).

_____11. Indicate the number of professional organizations to which you belong.

_____12. Indicate the number of professional organization meetings you attend each school year.

_____13. Indicate the number of offices that you hold or have held in the past 5 years in professional organizations.

_____14. Indicate your age.

_____15. How much time per week do you spend in coordinating unit, team, or learning activities?

_____16. How much released time do you receive per week for planning of instruction.

Form Approved
OMB No: _____

PRINCIPAL LEADERSHIP ASSESSMENT

You are participating in a study conducted by the Wisconsin Research and Development Center for Cognitive Learning. The purpose of this instrument is to determine the nature of the principal's leadership in your school.

This instrument to be completed by the teachers consists of 24 leadership items. The items are used in this study by permission of Dr. David G. Bowers and are adapted from the Survey of Organizations Questionnaire developed by the Institute for Social Research, The University of Michigan Organizational Development Research Program. Completion of the entire instrument should require about 10 minutes of your time. It is important that all items receive a response as any item left blank will give a distorted picture of your school. All responses will remain confidential and none will be identified by person, school, or school district.

Please answer the questions about each item by placing your response in the space provided. Upon completing the instrument please place it in the envelope provided and hold it for the researcher who will visit your school and pick up your sealed envelope of completed instruments.

Your participation in this study is sincerely appreciated.

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PRINCIPAL LEADERSHIP ASSESSMENT

Directions:

Indicate your feelings concerning the leadership of the principal of your school. For each item please answer by circling the number in the column most accurately describing your feelings.

1 = To a very little extent
2 = To a little extent
3 = To some extent
4 = To a great extent
5 = To a very great extent

1.	How friendly and easy to approach is your principal?	1 2 3 4 5
2.	When you talk with your principal to what extent does he/she pay attention to what you're saying?	1 2 3 4 5
3.	To what extent is your principal willing to listen to your problems?	1 2 3 4 5
4.	How much does your principal encourage people to give their best effort?	1 2 3 4 5
5.	To what extent does your principal maintain high standards of performance?	1 2 3 4 5
6.	To what extent does your principal show you how to improve your performance?	1 2 3 4 5
7.	To what extent does your principal provide the help you need so that you can schedule work ahead of time?	1 2 3 4 5
8.	To what extent does your principal offer new ideas for solving job related problems?	1 2 3 4 5
9.	To what extent does your principal encourage the persons who work for him/her to work as a team?	1 2 3 4 5
10.	To what extent does your principal encourage people who work for him/her to exchange opinions and ideas?	1 2 3 4 5
11.	To what extent do you feel your principal has confidence and trust in you?	1 2 3 4 5
12.	To what extent do you have confidence and trust in your principal?	1 2 3 4 5

1 = To a very little extent
2 = To a little extent
3 = To some extent
4 = To a great extent
5 = To a very great extent

13. To what extent does your principal handle the technical side of his/her job--for example, general expertise, knowledge of job, technical skills needed in the profession? 1 2 3 4 5

14. To what extent does your principal do a good job of representing your work to other teachers? ("Represent" means telling others about what you have done and can do, as well as explaining the problems you face and your readiness to do things.) 1 2 3 4 5

In order to be an effective leader, a principal needs certain kinds of information, skills, values, and situations. To what extent does your principal have each of the following:

15. Information about how his/her people see and feel about things? 1 2 3 4 5

16. Knowledge of what it takes to be a good leader? 1 2 3 4 5

17. An attitude which encourages participation and commitment from those who work for him/her? 1 2 3 4 5

18. Administrative skills? 1 2 3 4 5

19. Skills for getting along with others? 1 2 3 4 5

20. A work situation which allows him/her to be a good leader? 1 2 3 4 5

21. Interest and concern for the people who work for him/her? 1 2 3 4 5

When it is necessary for decisions to be made that affect you, to what extent does your principal do each of the following <u>before</u> final decisions are made?

22. Provide you with information about the decisions? 1 2 3 4 5

23. Ask for opinions and ideas from you? 1 2 3 4 5

24. Meet with his/her teachers <u>as a group</u>, present problems that must be solved and work with the group to find solutions? 1 2 3 4 5

Form Approved
OMB No: _____

JOB SATISFACTION SURVEY

You are participating in a study conducted by the Wisconsin Research and Development Center for Cognitive Learning. The purpose of this instrument is to determine the nature of job satisfaction in your school.

This instrument, to be completed by the staff teachers, consists of 50 job satisfaction items. Completion of the entire instrument should require about 30 minutes of your time. It is important that all items receive a response as any item left blank will give a distorted picture of your school. All responses will remain confidential and none will be identified by person, school, or school district.

Please answer the questions about each item by placing your response in the space provided. Upon completing the instrument please place it in the envelope provided and hold it for the researcher who will visit your school and pick up your sealed envelope of completed instruments.

Your participation in this study is sincerely appreciated.

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JOB SATISFACTION SURVEY

Directions: Please indicate your feelings of satisfaction with your situation. For each item please answer by circling the number in the column most accurately describing your feelings.

1 = Not satisfied
2 = Somewhat satisfied
3 = Satisfied
4 = Quite satisfied
5 = Very satisfied

How satisfied are you with:

1.	the professional competence and leadership of your administrators?	1	2	3	4	5
2.	the ability of your administrators to encourage people to work together?	1	2	3	4	5
3.	the manner in which school policies and regulations are enforced?	1	2	3	4	5
4.	the recognition you receive from your administrators for your teaching achievements?	1	2	3	4	5
5.	the procedures used to evaluate teachers in your school?	1	2	3	4	5
6.	the fairness of the administration in the assigning of extra duties?	1	2	3	4	5
7.	the opportunities provided to discuss problems with administrative personnel?	1	2	3	4	5
8.	the trust you have in your administrators?	1	2	3	4	5
9.	the administrator's trust in you?	1	2	3	4	5
10.	the innovativeness of your school administrators?	1	2	3	4	5
11.	the personal and social relationships you have with other teachers?	1	2	3	4	5
12.	the recognition you get from other teachers for your work?	1	2	3	4	5
13.	the quality of work of other teachers in your school?	1	2	3	4	5
14.	the amount of work done by other teachers in your school?	1	2	3	4	5

1 = Not satisfied
2 = Somewhat satisfied
3 = Satisfied
4 = Quite satisfied
5 = Very satisfied

How satisfied are you with:

15.	teaching, in light of what you expected to be doing as a teacher?	1 2 3 4 5
16.	your future in your school district?	1 2 3 4 5
17.	your opportunities for growth in your profession?	1 2 3 4 5
18.	your school as an organization to work for?	1 2 3 4 5
19.	the professionalism your school district shows toward teachers?	1 2 3 4 5
20.	the degree of your involvement in your school?	1 2 3 4 5
21.	the general reputation of your school?	1 2 3 4 5
22.	the opportunities that you have to influence school policy?	1 2 3 4 5
23.	your awareness of what is "going on" in your school?	1 2 3 4 5
24.	the goals emphasized by your school?	1 2 3 4 5
25.	the amount of money you make?	1 2 3 4 5
26.	the salary schedule and fringe benefits in your school district?	1 2 3 4 5
27.	the physical facilities of your school?	1 2 3 4 5
28.	the number of students accommodated in your school?	1 2 3 4 5
29.	the availability of appropriate instructional materials and equipment?	1 2 3 4 5
30.	the arrangement of appropriate instructional materials and equipment?	1 2 3 4 5
31.	the amount of preparation time provided for teachers in your school?	1 2 3 4 5
32.	the custodial services provided in your school?	1 2 3 4 5

1 = Not satisfied
2 = Somewhat satisfied
3 = Satisfied
4 = Quite satisfied
5 = Very satisfied

How satisfied are you with:

33.	the quality of the work you do?	1 2 3 4 5
34.	the extent to which you are motivated by your job?	1 2 3 4 5
35.	the freedom that you have to experiment with instructional methods?	1 2 3 4 5
36.	the intellectual stimulation that you receive from your work?	1 2 3 4 5
37.	the opportunities that you have to teach in your major areas of interest?	1 2 3 4 5
38.	the amount of work you are expected to do?	1 2 3 4 5
39.	the amount of time that you actually spend in teaching?	1 2 3 4 5
40.	the total time that you spend with students?	1 2 3 4 5
41.	the number of students for whom you are responsible?	1 2 3 4 5
42.	the extent to which you are able to meet your students' academic needs?	1 2 3 4 5
43.	the extent to which you are able to meet your students' affective needs?	1 2 3 4 5
44.	the quality of your interactions with your students?	1 2 3 4 5
45.	the extent to which the community recognizes and appreciates its educators?	1 2 3 4 5
46.	the adequacy of financial support provided your school by the community?	1 2 3 4 5
47.	the understanding of your school's program by parents and the community?	1 2 3 4 5
48.	the community's involvement in your school's program?	1 2 3 4 5
49.	the methods used to communicate with the community about your school?	1 2 3 4 5
50.	the methods used to report student progress to parents?	1 2 3 4 5

TIME ALLOCATION OF INSTRUCTIONAL PERSONAL

Instructions:

1. This form is designed to provide information about the utilization of time by selected teachers. The form should be completed by each selected teacher and by the principal.

2. Please estimate as accurately as you can either:

   a) the number of hours per week you typically spend in the various activities listed on this form

   or

   b) the percentage of your time you typically spend in the various activities listed on this form.

3. If you report your allocation of time in hours, the total of the hours in Category II--Direct Instruction of Pupils, and Category III--Activities Other Than Direct Instruction of Pupils, should equal the total amount of time, both in-school and out-of-school, that you devote to your job.

   If you report your time in percentage, the percentage of time in Category II--Direct Instruction of Pupils, and Category III--Activities Other Than Direct Instruction of Pupils, should total to 100%.

4. If you are not involved in a particular activity enter a zero (0).

5. If you are not directly involved in instruction of students, e.g., principal or secretary, you may disegard Section II of the form.

6. If you are directly involved in instruction of students, we are especially interested in the amount or percentage of time devoted to the various modes of instruction (for example, one-to-one, small group, large group, etc.) in the various areas of the curriculum. Your best estimate of the amount or percentage of your time spent in these various activities is sufficient; we do not expect "stop watch" accuracy in your estimates.

I. Please check your position.

_____ Principal _____ Intern

_____ Teacher _____ Unit Secretary

_____ Aide

II. Direct Instruction of Pupils

Direct instruction of students includes those activities in which you are directly involved in teaching students. Examples would include lecturing to a large group of students, showing a film, working with a small group of students on a particular skill, or working with an individual student in a task or giving directions to a student who will engage in independent study.

A. Please estimate the number of hours per week or percentage of time per week that you spend in this activity:

_____

B. Of the time you spend in direct instruction of students, please indicate how that time is allocated among the following curricular areas and modes of instruction:

	Mode of Instruction				
Curriculum Area	1:1	Small Group (3-5 Students)	Class-size Group	More Than One Class	Other
Reading					
Language Arts					
Mathematics					
Science					
Social Studies					
Other					

III. Activities Other Than Direct Instruction of Pupils

No. of Hours/Week or Percentage of Time in This Activity

A. Supervision of Pupils, e.g., recess, lunchroom playground, etc. _____

B. Planning, e.g., instructional activities for pupils. _____

C. Testing/Assessing/Evaluating, e.g., activities associated with determining progress of pupils. _____

D. Record Keeping, e.g., maintaining up-to-date records on each pupil's progress. _____

No. of Hours/Week or Percentage of Time in This Activity

E. Inservice Training, e.g., school-wide or system-wide activities designed to promote professional development of the staff. _____

F. Clerical/secretarial, e.g., typing tests and instructional materials, correcting papers and tests, mimeographing or duplicating materials, and similar activities. _____

G. Administrative, e.g., activities such as supervision of instruction which support the instructional program but are not directly involved with it. _____

H. Other, any activities not identified in the above categories (please specify). _____

_____

_____

_____

_____

Form Approved
OMB No: _____

DECISION INVOLVEMENT ANALYSIS

You are participating in a study being conducted by the Wisconsin Research and Development Center for Cognitive Learning. The purpose of this instrument is to determine the nature of involvement in the decision-making process in your school.

This instrument consists of 19 decision items about which questions are asked. Completion of the entire instrument should require less than fifteen minutes of your time. All responses will remain confidential and none will be identified by person, school, or school district.

Please answer the four questions asked about each decision item by placing your responses in the spaces provided. A sample item, which has been marked, is provided for your convenience. Upon completing the instrument, please place it in the envelope provided and hold it for the researcher who will visit your school and pick up your envelope of completed instruments.

Your participation in this study is sincerely appreciated.

Published by The Wisconsin Research and Development Center for Cognitive Learning, supported in part as a research and development center by funds from the National Institute of Education, Department of Health, Education and Welfare. The opinions expressed herein do not necessarily reflect the position of the National Institute of Education and no official endorsement by the National Institute of Education should be inferred.

Sample Item

The allocation of materials, equipment, and supplies to units within your school

1. ☐

2. ☐

3. ☐

4. ☐

Decision Item #1

The approval of instructional materials to be purchased

1. ☐

2. ☐

3. ☐

4. ☐

Decision Item #2

The coordination of curriculum across classes within your school

1. ☐

2. ☐

3. ☐

4. ☐

Decision Item #3

The amount of planning time provided teachers

1. ☐

2. ☐

3. ☐

4. ☐

Decision Item #4

The procedures to be utilized in evaluating instructional materials within your school

1. ☐

2. ☐

3. ☐

4. ☐

Decision Item #5

The criteria to be utilized in evaluating instructional programs within your school

1. ☐

2. ☐

3. ☐

4. ☐

Decision Item #6

The number and nature of parent-teacher conferences

1. ☐

2. ☐

3. ☐

4. ☐

Decision Item #7

The procedures to be utilized in evaluating the principal's performance

1. ☐

2. ☐

---

3. ☐

---

4. ☐

Decision Item #8

The groupings to be utilized for instruction (one-to-one, small groups, etc.)

1. ☐

2. ☐

3. ☐

4. ☐

Decision Item #9

The procedures to be utilized in student assessment

1. ☐

2. ☐

3. ☐

4. ☐

Decision #10

The design and content of curriculum within your classroom

1. ☐

2. ☐

3. ☐

4. ☐

Decision Item #11

The procedures to be utilized in evaluating teacher performance

1. ☐

2. ☐

---

3. ☐

---

4. ☐

Decision Item #12

The criteria to be utilized in evaluating preservice and inservice programs

1. ☐

2. ☐

---

3. ☐

---

4. ☐

Decision #13

The nature and extent of consultant help from outside your school

1. ☐

2. ☐

3. ☐

4. ☐

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Decision Item #14

The topics for the Inservice program

1. ☐

2. ☐

---

3. ☐

---

4. ☐

Decision Item #15

The area(s) in which teachers should specialize (if any)

1. ☐

2. ☐

3. ☐

4. ☐

Decision Item #16

The instructional objectives each child is to attain

1. ☐

2. ☐

---

3. ☐

---

4. ☐

Decision Item #17

The amount and nature of supervision of teaching methods

1. ☐

2. ☐

3. ☐

4. ☐

Decision Item #18

The budget for your school

1. ☐

2. ☐

---

3. ☐

---

4. ☐

150

Decision Item #19

The extent of involvement of parent advisory groups in the programs of your school

1. ☐

2. ☐

3. ☐

4. ☐

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DECISION INVOLVEMENT ANALYSIS

Questions

Please answer the following four questions in terms of your school by placing the appropriate number of the response in the boxes provided for each decision item. The responses are listed in the right hand column of this sheet. Place only one answer in each box.

1. Which person or group presently makes the final decision on this item? ☐

2. Which person or group should make the final decision on this item? ☐

---

3. How much involvement do you presently have in making this decision? ☐

---

4. To what extent are you satisfied with your involvement in making this decision? ☐

Use the Following Numbers to Respond to Questions 1 and 2.

1 - Board of Education
2 - Superintendent or Other Central Office Personnel
3 - Negotiation Teams (if any)
4 - A Policy Committee
5 - Principal or Assistant Principal
6 - Entire Faculty as a Group
7 - A Curriculum Committee
8 - Teachers as a Group
9 - Individual Teacher
10 - Parents or Parent Advisory Committee
11 - Student
12 - No One Presently Responsible

Use the Following Numbers to Respond to Question 3.

1 - Very little involvement
2 - Little involvement
3 - Some involvement
4 - Much involvement
5 - Very much involvement

Use the Following Numbers to Respond to Question 4.

1 - Not satisfied
2 - Somewhat satisfied
3 - Satisfied
4 - Quite satisfied
5 - Very satisfied

APPENDIX D

INTERVIEW, OBSERVATION, AND RATING FORMS USED IN IGE/NON-IGE SCHOOL STUDY

Evaluation Study of IGE
1/15/76

School Name_____

Address_____

Interviewer_____

Date_____

Principal Questionnaire

IGE Schools

I. "Lead in" Questions

A. Re: MDS:

1. Do you have special education pupils? Yes No

2. If yes, how are they organized?
____in their own separate unit
____included in "regular" units
____some of each
____other, specify:_____

3. How are special area teachers organized?
____each one is alone/no affiliation with any unit
____they form a unit of their own
____they are included in "regular" units
____other, specify:_____

4. How is kindergarten treated?
____as self contained classroom(s)
____in a kindergarten unit
____as a part of a primary unit
____other, specify:_____

B. Re: Home/School Community:

1. In general, does the school have the support of the parents?

Yes No Somewhat No information

2. In general, does the school have the support of the community at large?

Yes No Somewhat No information

3. Does the school have the support of the central office?

Yes No Somewhat No information

4. Does the school have the support of other schools in the district?

Yes No Somewhat No information

Note: In questions 5 and 6 we're trying to find out whether the school really wants to include the community in the decisions before they occur rather than just telling the community what has already been decided. Don't push too hard, though, if this gets touchy.

5. With regard to your school's interaction with parents and the community in general has there been any <u>systematic attempt</u> to discover what kind of <u>future educational programs the community wants</u>? (e.g., questionnaires, open meetings)

Yes No Somewhat No information

Comment (if yes, describe what they do):

6. Are there any provisions for including community members in the decisions regarding school programs or policy (i.e., <u>before</u> the program/policy is drafted)?

II. Implementation Questions

A. Re: MUS:

1. How often do IIC meetings occur?_____

2. Are <u>agendas</u> written up beforehand?

Yes No Sometimes No information

3. Are <u>minutes</u> written up afterwards?

Yes No Sometimes No information

B. Re: Facilitative Environments

1. Do representatives from the IGE schools in your area get together to talk on a regular basis?

Yes No Sometimes No information

2a. Do you belong to a Systemwide Program Committee (SPC)? Yes No

2b. If yes, how frequently does the SPC meet?_____

2c. What staff members attend SPC meetings?_____

2d. What is typically discussed at the meetings?

2e. Are all IGE schools in the district represented?

Usually Sometimes Seldom No info

2f. What decisions have they put into effect?

2g. Do the decisions made at the SPC meetings affect all represented schools?

Usually Sometimes Seldom No info

3a. Do staff members attend meetings of IGE Networks, Leagues or PACTs (etc.)?

Yes No Sometimes No info

3b. If yes, which staff members?_____

3c. If yes, how often?_____

III. IGE Concepts

A. Have you ever been principal of a non-IGE school? ___Yes ___No
If so, what do you as principal do differently as a result of the changeover to IGE?

B. Follow up principal's response with further probing regarding:

1. Who makes decisions about

1) what's taught in the units

2) who chooses the curriculum materials and supplies

3) how do pupils get assigned to units? assigned to teachers within units?

4) who decides how a school's budget will be spent

* ---

5) who determines where and when aides will be used?

6) who determines the scheduling of instruction (for specials as well as other subject areas?

7) who is involved in hiring a new teacher/aide/unit leader/ IMC director?

8) who handles discipline problems?

9) who determines what the inservice topics will be?

10) who evaluates the performance of:
unit leaders?
teachers?
aides?
IMC director?

2. As principal how involved are you in determining:

1) school wide instructional objectives?

* Questions following a dashed line are for less important information; answer if you have time.

2) the instructional objectives for each unit?

3) the instructional objectives for an individual student?

4) what assessment instruments will be used?

5) when standardized achievement assessments will be made?

6) when and how often criterion-referenced assessments are made?

---

7) what materials are used to teach objectives?

8) the record keeping systems used?

9) the grouping of students for instruction?

10) the assignment of students to various modes of instruction (independent, peer-teaching, small group, etc.)

3. Is there more staff preservice and inservice since the changeover to IGE? If so, how much more?

C. Since the multiunit organization took place has your amount of interaction changed with regard to how often you talk to:

1) teachers

2) aides

3) students

4) parents

5) other community members

D. Could you at this moment replace a teacher for an hour in any of your units and be aware of:

1) which objectives are being worked on

2) what materials are being used

3) how students are grouped

4) what choices a student might have regarding what is to be worked on that day

5) the record keeping system used for keeping track of what students have done and how well?

E. Since the multiunit organization took place, how do you view yourself with regard to your professional role as a principal?

Evaluation Study of IGE
1/15/76

School Name_____

Address_____

Interviewer_____

Date_____

Principal Questionnaire

Non-IGE Schools

A. 1. In your school, who makes decisions about

1) what's taught in the classrooms

2) choosing the curriculum materials and supplies

3) how pupils get assigned to classrooms

4) how a school's budget will be spent

* ----------

5) where and when aides will be used

6) the scheduling of instruction (for specials as well as other subject areas)

7) hiring a new teacher/aide/librarian

8) discipline problems

9) what the inservice topics will be

* Questions following a dashed line are for less important information; answer if you have time.

10) the assignment of students to various modes of instruction (independent, peer-teaching, small group, etc.)

2. As principal how involved are you in determining:

1) school wide curriculum?

2) the instructional objectives taught in each classroom?

3) the instructional objectives for an individual student?

4) what assessment instruments will be used?

5) when standardized achievement assessments will be made?

6) when and how often criterion-referenced assessments are made?

- -

7) what materials are used to teach a curriculum?

8) the record-keeping systems used?

9) the grouping of students for instruction?

10) the assignment of students to various modes of instruction (independent, peer-teaching, small group, etc.)?

B. Could you at this moment replace a teacher for an hour in any of your classrooms and be aware of:

1) what is being studied?

2) what materials are being used?

Could you replace a teacher and be aware of:

3) how students are grouped?

4) what choices a student might have regarding what is to be worked on that day?

5) the record-keeping system used for keeping track of what students have done and how well?

IGE Evaluation Study
1/15/76

Interviewer_____

School_____

Address_____

Date_____

Speaking to: Unit Leader Teacher
(circle one)

Grade Level Equivalents of Unit:_____

Unit Leader/Teacher Questions

IGE School

I. Implementation Questions

A. MUS-E Component:

1a. Are unit members designated subject matter experts?

Yes No No information

1b. If yes, do they provide their team members with suggestions in that area?

Often Sometimes Seldom No information

2a. How often do formal unit meetings take place?_____

2b. When does this occur?_____
(Look for odd hours, like "over lunch," "during recess," etc.)

2c. Is this "release time?" (i.e., no students are present)

Yes No Sometimes No information

2d. Does the unit as a whole do instructional planning at this time? (i.e., not teachers planning individually)

Yes No Sometimes No information

2e. Are agendas written up beforehand?

Yes No Sometimes No information

2f. Are minutes written up afterward?

Yes No Sometimes No information

3a. Is there an exchange of students among teachers in the unit? Yes No

3b. If yes, for what subject areas does this occur:

_____

3c. How many (what proportion of) students are involved in this exchange?

_____

3d. How frequently does this take place during one day?_____

4a. How often do IIC meetings occur?_____

4b. Are assessment results the basis for regrouping in

reading: Yes No Sometimes No info

math: Yes No Sometimes No info

4c. Are students postassessed?

reading: Yes No Sometimes No info

math: Yes No Sometimes No info

4d. If yes, how often:

reading:_____

math:_____

4e. With what instruments?

reading:_____

math:_____

II. Concepts Questions

A. If you have worked in a non-IGE school, what changes have occurred in your work since you became a unit leader/teacher in an IGE school? (List topics mentioned below.)

B. Follow up response with probing about whether unit leader/teacher is now more involved in: (or "How much are you involved in")

1. decision making (e.g., what's taught, curriculum materials, assignment of pupils to unit, budget, use of aides, scheduling, hiring)

2. coordinating (other teachers, aides, volunteers, larger number of students, i.e., unit wide activities)

3. communicating with a greater number of parents?

   other community members?

4. finding resources for student instruction?

   for staff inservice?

4b. Are agendas written up beforehand? Yes No Sometimes No info

4c. Are minutes written up afterwards? Yes No Sometimes No info

B. IPM Component

1. What published programs is this unit using for

   reading:

   math:

2a. Is this unit using a written set of objectives for

   reading: Yes No No information

   math: Yes No No information

2b. If yes, did the unit write their own objectives or are they a part of a published program?

   reading: their own published some of each No info

   math: their own published some of each No info

2c. Do teachers prepare their instruction ("lesson") plans on the basis of specific objectives?

   reading: Yes No Sometimes No info

   math: Yes No Sometimes No info

3a. Are students preassessed for objectives in

   reading: Yes No Sometimes No info

   math: Yes No Sometimes No info

3b. If yes, with what instruments:

   reading: _____

   math: _____

3c. If yes, how often:

reading: _____

math: _____

4a. How often are students regrouped?

reading: _____

math: _____

4b. Does regrouping mean that the groups have a new membership, or that groups stay intact and move on to a new skill or topic?

reading:	new membership	same membership/new skill or topic
	some of each	no info
math:	new membership	same membership/new skill or topic
	some of each	no info

Are you now more involved in...

5. staff preservice and inservice (does unit leader now play a leadership role in these activities?) (Is there more of this since IGE started?)

* - - -

C. Regarding students:

Comments

1. Please estimate what percent of your students are successfully completing their assignments in reading and math each day?

   reading_____ math_____

2. Do you think the pace at which most students are progressing is compatible with their ability?

   Yes for some No

- - - -

Comments

9. Are students working on specific instructional objectives?

Yes No

If yes, for what content areas?_____

10. Do students ever choose which objectives they will work on?

Yes, often Occasionally No

11. Do they ever choose the sequence of objectives they will work on?

Yes, often Occasionally No

12. Do they ever select the materials they will use to attain an objective?

Yes, often Occasionally No

13. Do students independently handle instructional materials (film loops, tape recorders, projectors, learning station materials, etc.)?

Yes, often Occasionally No

14. Do students ever test themselves?

Yes, often Occasionally No

15. Do they keep records of their objectives and assessments?

Yes, often Occasionally No

16. Can they state the objectives they are working on in one or more subject areas?

Yes, most can Some can None can

IGE Evaluation Study
1/15/76

Interviewer_____
School_____
Address_____
Date_____
Grade level(s) taught by teacher_____

Teacher Questionnaire

Non-IGE School

A. How much are you involved in:

1. decision making (e.g., with regard to: what's taught, curriculum materials, assignment of pupils to classrooms, budget, use of aides, scheduling, hiring, etc.)

2. coordinating (other teachers, aides, volunteers, students, other than those in your "homeroom")

3. communicating with parents?

   other community members?

4. finding resources for student instruction?

   for staff inservice?

5. staff preservice and inservice (how much is there; does teacher play a leadership role in these activities?)

* -

6. sharing ideas with other staff members

7. exchanging students with other teachers

8. sharing the planning of what's taught with other teachers

How much are you involved in:

9. identifying and using objectives as the basis for instruction

10. choosing assessment instruments

11. thinking of students as individuals? (E.g., how unique is the content of each child's instructional program? How often do they focus in on one child?)

12. using assessment results for daily planning?

13. offering student choices in the assignments to be done?

* Questions following a dashed line are for less important information. Answer if you have time.

14. using a variety of materials?

15. using a variety of instructional settings (small groups, pairs, independent study, etc.)

B. Regarding students:

Comments

1. Please estimate what percent of your students are successfully completing their assignments in reading and math each day?

   reading_____ math_____

2. Do you think the pace at which most students are progressing is compatible with their ability?

   Yes for some No

- -

3. Do students move from one instructional setting to another with little or no adult supervision?

   Yes No Somewhat

4. a) Is their movement direct and purposeful (or do they spend a lot of unnecessary time getting from one place to another)?

   Yes (direct & purposeful) No Somewhat

   b) Is it done without disturbing other students or staff?

   Yes, usually Some disruption No, very disruptive

5. Do students keep track of their own materials for each instructional setting?

   a) Do they carry supplies or books from one place to another?

   Yes No

   b) Do they usually remember to bring what is needed or is there a lot of "running back to get something?"

   Yes, usually Sometimes No (much forgetting)

6. Do students care for the school's materials without adult supervision?

   a) Do they get and replace equipment or supplies for an activity on their own?

   Yes, often Sometimes Rarely

   b) Do they know how to operate multi-media equipment and use it carefully?

   Yes, most do Some do None do

Comments

7. On the average, how many teachers does a student interact with each day (excluding special area teachers)?_____

8. Do students interact with other students of various ages each day?

   in instructional settings? Yes No

   in recreational settings? Yes No

---

9. Are students working on specific instructional objectives?

   Yes No

   If yes, for what content areas?_____

10. Do students ever choose which objectives they will work on?

    Yes, often Occasionally No

11. Do they ever choose the sequence of objectives they will work on?

    Yes, often Occasionally No

13. Do students independently handle instructional materials (film loops, tape recorders, projectors, learning station materials, etc.)?

    Yes, often Occasionally No

14. Do students ever test themselves?

    Yes, often Occasionally No

15. Do they keep records of their objectives and assessments?

    Yes, often Occasionally No

16. Can they state the objectives they are working on in one or more subject areas?

    Yes, most can Some can None can

Evaluation Study of IGE
1/15/76

School Name_____

Circle one: IGE Non-IGE

Address_____

Age of student_____

Date_____

Interviewer_____

Student Questionnaire

For IGE and Non-IGE

Comments

1. How many different teachers do you usually work with at school? (Check to see that this excludes "special" teachers.) #_____

2. Do you always do the same work as everyone else?

   Yes, usually___ Sometimes___ No, usually not___

3. Do you ever get to choose what work you want to do?

   Yes___ No___ No info____

4. Do you ever work on any assignment with just one other student? Yes___ No___ No info___

5. Do you ever go to the IMC (library) by yourself to work on an assignment? Yes___ No___ No info___

6. Do you usually get your assignments done right? (or, alternately, are your assignments usually too hard, too easy, or just right?; or, does the teacher usually have to help you with your assignments?)

   _____

7. Do you ever use a filmstrip or tape recorder by yourself (i.e., without an adult helping)?

   Yes___ No___ No info___

8. Do you ever correct a test you've taken yourself?

   Yes___ No___ No info___

Comments

9. Do you ever keep a record of what work you do?

   Yes___ No___ No info___

10. Can you tell me what you're working on now?
    (or just completed?) (Why are you doing this?)
    (Seek for an objective.)

Evaluation Study of IGE

School Name_____

Address_____

Date Visited_____

Observer_____

Observation Checklist for IGE Schools

MUS-E Implementation

1. How is space allocated for units? (Describe in terms of pods, open areas, single classrooms strung together, etc.)

2. Are the units easily identifiable by structure and labels (or do you have to search for the information to answer #1 above)?

1 2 3 4 5

impossible to determine without asking — easily identifiable

3. Is there one central place where staff tends to congregate (or are there several locations, e.g., 1 for each unit? Where is the coffee? Where is smoking allowed? This is a check for informal staff interaction.)

4. Regarding I & R unit: Comment

a) Do unit staffs have a place to meet and work together?

Yes_____ No_____ No info_____

If Yes,

1) Is this place the same as where individual teachers' desks are located?

Yes___ No___ No info___

2) Does this space also "house" members of other units or specials?

Yes___ No___ No info___

3) Is this place located in or near the unit's instructional area?

Yes___ No___ No info___

Comment

4) Is this place different than a general "faculty lounge?" Yes___ No___ No info___

5) How often during the day do unit members use this space? Comment:

6) Is this area usually used by more than one person at a time? Yes___ Sometimes___ No___ No info___

7) If more than one person is in the space is there usually school-related conversation going on?

Yes___ No___ No info___

5. Regarding the IMC:_____ library:_____ (Check the name they use)

a) Is it convenient to all units? 1 2 3 4 5

totally inconvenient for all units — somewhat convenient — yes, very convenient for all

b) How many staff members are now on hand?_____

c) Are there nonprint materials and hardware readily available to students (or do they have to ask for it from an adult)? 1 2 3 4 5

everything must be asked for — readily available

d) Is it used by students other than in "class size" groups?

Yes___ No___ No info___

If yes:

(1) Do students get and replace equipment with ease? 1 2 3 4 5 _____

no, none do — some yes, some no — yes, all do — No info

without supervision? 1 2 3 4 5 _____

no, none do — some yes, some no — yes, all do — No info

(2) Do they stay on task? 1 2 3 4 5 _____

no, none do — some yes, some no — yes, all do — No info

(3) Do any of them work: in small groups? Yes___ No___ No info___
independently? Yes___ No___ No info___
in pairs? Yes___ No___ No info___

(4) Do they come to work on an assignment (or just to "take out books")?
Please comment:

6. If possible observe student movement from one instructional setting to another.

a) Do they do it without supervision?

1 2 3 4 5

no, not at all — yes, completely — No info

b) Do they move aimlessly or purposefully?

1 2 3 4 5

totally aimless — totally purposeful — No info

c) Do they do it without disturbing other students or staff?

1 2 3 4 5

no disruption — total chaos — No info

d) Do they remember to take the supplies they need or do they have to "run back" for something?

1 2 3 4 5

no, none do — yes, all do — No info

7. Regarding Staff/Student interactions, where applicable, comment on the pattern of staff/student interactions.

e.g., How does the teacher view students? principal?
students view teachers? principal?
auxiliary staff view principal? teachers? students?

Comment:

Evaluation Study of IGE
1/15/76

School Name_____

Address_____

Date Visited_____

Observer_____

Observation Checklist for Non-IGE Schools

MUS-E Implementation?

1. How is the school organized? (Are there any teams; are there only self-contained classrooms?)

2. Is there one central place where staff tends to congregate (or are there several locations, e.g., 1 for each team? Where is the coffee? Where is smoking allowed? This is a check for informal staff interaction.)

3. Regarding teams (if there are any): Comment

   a) Do team staffs have a place to meet and work together?

      Yes____ No____ No info____

      If Yes,

      1) Is this place the same as where individual teachers' desks are located?

         Yes___ No___ No info____

      2) Does this space also "house" members of other teams or specials?

         Yes___ No___ No info____

      3) Is this place located in or near the team's instructional area?

         Yes____ No____ No info____

      4) Is this place different than a general "faculty lounge?"

         Yes____ No____ No info____

      5) How often during the day do team members use this space?

      Comment:

Comment

6) Is this area usually used by more than one person at a time?

Yes____ Sometimes____ No____ No info____

7) If more than one person is in the space is there usually school-related conversation going on?

Yes____ No____ No info____

4. Regarding the IMC:_____ library:_____ (Check the name they use)

a) Is it convenient to all?

1 2 3 4 5

totally inconvenient for all — somewhat convenient — yes, very convenient for all

b) How many staff members are now on hand?_____

c) Are there nonprint materials and hardware readily available to students (or do they have to ask for it from an adult)?

1 2 3 4 5

everything must be asked for — readily available

d) Is it used by students other than in "class size" groups?

Yes_____ No_____ No info_____

If yes:

(1) Do students get and replace equipment with ease?

1 2 3 4 5

no, none do — some yes, some no — yes, all do — No info _____

without supervision?

1 2 3 4 5

no, none do — some yes, some no — yes, all do — No info _____

(2) Do they stay on task?

1 2 3 4 5

no, none do — some yes, some no — yes, all do — No info _____

(3) Do any of them work: in small groups? Yes___ No___ No info___

independently? Yes___ No___ No info___

in pairs? Yes___ No___ No info___

Comment

(4) Do they come to work on an assignment (or just to "take out books")?
Please comment:

5. If possible observe student movement from one instructional setting to another.

a) Do they do it without supervision?

1 2 3 4 5

No, not at all — Yes, completely — No info

b) Do they move aimlessly or purposefully?

1 2 3 4 5

totally aimless — totally purposeful — No info

c) Do they do it without disturbing other students or staff?

1 2 3 4 5

no disruption — total chaos — No info

d) Do they remember to take the supplies they need or do they have to "run back" for something?

1 2 3 4 5

no, none do — yes, all do — No info

6. Regarding Staff/Student interactions, where applicable, comment on the pattern of staff/student interactions.

e.g., How does the <u>teacher</u> view students? principals?
<u>students</u> view teachers? principals?
<u>auxiliary staff</u> view principal? teachers? students?

Comment:

Evaluation Study of IGE
1/15/76

School Name_____

Address_____

Interviewer(s)_____

Date_____

IGE Implementation Checklist: School Summary

A. MUS-E Component: Comments

1a. Are unit members designated subject matter experts?
Yes No Questionable* No information

1b. If yes, do they provide their team members with suggestions in that area?
Often Sometimes** Seldom Questionable No info

2a. How often do formal unit meetings take place?
_____

2b. When does this occur?_____
(Look for odd hours, like "over lunch," "during recess," etc.)

2c. Is this "release time?" (i.e., no students are present) Yes No Sometimes Questionable No info

2d. Do the units as a whole do instructional planning at this time? (i.e., not teachers planning individually)

2e. Are agendas written up beforehand?
Yes No Sometimes Questionable No info

2f. Are minutes written up afterward?
Yes No Sometimes Questionable No info

3a. Is there an exchange of students among teachers in the unit?
Yes No Questionable

3b. If yes, for what subject areas does this occur:

3c. How many (what proportion of) students are involved in this exchange?_____
(give range across units)

*"Questionable" means some units do; others don't
**"Sometimes" means sometimes yes, sometimes no

Comments

3d. How frequently does this take place during one day?

_____

(give range across units)

4a. How often do IIC meetings occur?_____

4b. Are agendas written up beforehand?
Yes No Sometimes No info

4c. Are minutes written up afterwards?
Yes No Sometimes No info

B. IPM Component

1. What published programs are the units using for reading:

math:

2a. Are the units using a written set of objectives for reading: Yes No Questionable No info
math: Yes No Questionable No info

2b. If yes, did the units write their own objectives or are they a part of a published program.
reading: their own published some of each no info
math: their own published some of each no info

2c. Do teachers prepare their instruction ("lesson") plans on the basis of specific objectives?
reading: Yes No Sometimes Questionable No info
math: Yes No Sometimes Questionable No info

3a. Are students preassessed for objectives in
reading: Yes No Sometimes Questionable No info
math: Yes No Sometimes Questionable No info

3b. If yes, with what instruments:
reading:_____
math:_____

3c. If yes, how often:
reading:_____
math:_____
(give range across units)

Comments

4a. How often are students regrouped?
reading:_____
math:_____

4b. Does regrouping mean that the groups have a new membership, or that groups stay intact and move on to a new skill or topic?
reading: new membership same membership/new skill
some of each no info
math: new membership same membership/new skill
some of each no info

4c. Are assessment results the basis for regrouping in
reading: Yes No Sometimes Questionable No info
math: Yes No Sometimes Questionable No info

4d. Are students postassessed?
reading: Yes No Sometimes Questionable No info
math: Yes No Sometimes Questionable No info

4e. If yes, how often:
reading:_____
math:_____

4f. With what instruments:
reading:_____
math:_____

C. Facilitative Environments Component

1. Do representatives from the IGE schools in your area get together to talk on a regular basis?
Yes No Sometimes No info

2a. Do you belong to a Systemwide Program Committee (SPC)? Yes No

2b. If yes, how frequently does the SPC meet?_____
_____

2c. What staff members attend SPC meetings?_____
_____

2d. What is typically discussed at the meetings?

2e. Are all IGE schools in the district represented?
Usually Sometimes Seldom No info

Comments

2f. What decisions have they put into effect?

2g. Do the decisions made at the SPC meetings affect all represented schools?
Usually Sometimes Seldom No info

3a. Do staff members attend meetings of IGE Networks, Leagues or PACTs (etc.)?
Yes No Sometimes Questionable No info

3b. If yes, which staff members?_____
_____

3c. If yes, how often?_____
_____

On-Site Summary Report
IGE Evaluation Study
January-February 1976

School _____

Address _____

Principal _____

Date of Visit _____ Date of Report _____

Person(s) visiting _____

Person(s) reporting _____

Reason for visit _____

How long in school (hours) _____

Methods and Approaches Used

Interviews (Check or give number where possible)	Observations (Check settings and give time estimates)	# of minutes
____Principal	____general office	____
____Unit leaders (list all grade levels represented _____)	____principal's office	____
	____IMC or library	____
____Teachers (grade levels represented: _____)	____units/classrooms during instruction	____
____Students (grade levels represented: _____)	____units/classrooms during non-instructional times	____
____Specialists (Specify: _____ _____)	____"Hallways" while students are moving from one instructional setting to another	____
____Others (Specify: _____ _____)	____Number of "special" settings (e.g., art room, gym, cafeteria, etc.) Specify: _____ _____	____

Special Conditions to be noted - either positive or negative (e.g., Physical layout, staffing considerations)

Descriptive Summary of Findings (i.e., Facts)

1. Organization (MUS, decision making, aides, etc.)

2. Instructional Program (materials being used, assessment practices, grouping, etc.)

3. Cooperation with other IGE schools

4. Other (Home-school, evaluation, etc.)

Overall Impressions (i.e., Commentary)

1. Implementation

2. Outcomes

Recommendations regarding future on-sites or studies ("Must see," some worthwhile aspects, "avoid at all costs," only as a horrible example, etc.)

Direct Outcomes

Definitions

1. Instructional Cooperation

The degree to which the school staff cooperates in instructional activities--planning, sharing ideas, teaching, and evaluating. The dimension runs from the totally self-contained class with no contact with other teachers and students to totally coordinated and executed instruction across a group of teachers according to strengths and interests.

1	3	5	7
No sharing of students or ideas	Students are shared for one or more areas (i.e. teacher takes several middle groups) for convenience of teachers	Teachers occasionally plan together and swap individual students according to student needs	Total coordination and execution of instruction in academic subject areas

2. Involvement in Decision Making

The degree to which the staff (as a total faculty, in the IIC, or in units) cooperates in the decision-making process - clarification of concerns, approaches to solution, and evaluation. The emphasis here is on activities indirectly related to instruction (e.g. budget, scheduling, hiring, etc.). The dimension runs from no involvement in decisions to partnership in all available decisions. NOTE: A school should not be penalized for lack of involvement in decisions that are not under the control of the school (e.g. system-wide curriculum adoptions, mandated instructional periods.)

1	3	5	7
No involvement	Consultation but no decision making	Decision making on some issues--e.g. student assignments, schedules	Total decision making cooperation

3. Professional Responsibility

The degree to which the staff assumes professional responsibility for instruction. The focus is on the expansion of the traditional responsibility for covering material and assigning grades to the planning and execution of the students' educational program. The dimension runs from the minimum of going through the materials prescribed year after year to taking the initiative to use whatever means possible to provide the necessary education (seeing themselves as the educator, with materials for tools).

1	3	5	7
Minimum professional responsibility (teacher as tool; materials are the program with minimal evaluation from the teachers)	Seek additional information and evaluates materials and strategies	Teachers seek additional information and adapt some programs on basis of professional judgment	Teachers (or unit) take professional responsibility for entire instructional program, including development where necessary

4. Professional Role Differentiation

The degree to which staff members have adopted differentiated professional roles. The dimension runs from the traditional pattern of each teacher playing the same role to totally differentiated staffing with each staff member having a unique role.

1	3	5	7
No differentiation among staff members	One staff member has assumed on administrative role with regard to other staff members in addition to instruction	Staff members assume some content specialization in addition to instructional role	Each member of a unit or staff grouping (department, grade-level group, etc.) has unique role

5. Use of instructional objectives

The degree to which instruction in reading and mathematics is actually guided by objectives--instruction focused on the assessed needs of students, and teaching controlled by the degree to which those objectives are met. The dimension runs from cover to cover use of materials (regardless of whether objectives are stated) to instruction totally constructed around objectives designed to meet the needs of students.

1	3	5	7
Instruction strictly from book, regardless of need	A few specific objectives identified and taught	Planning of instruction in terms of objectives	All reading and mathematics constructed around objectives

6. Continuous Progress

The degree to which the needs of the individual student guide the everyday practices of the school, including sharing of information, instructional practices, grouping, etc. The dimension runs from total non-differentiation of students' needs to a total educational program built on the individual child's needs, allowing them to progress at their individual maximum rate.

1	3	5	7
Equal progress of students assumed except for the <u>few</u> very gifted or <u>few</u> in great trouble	Progress permitted only in terms of broadly defined student groups (e.g. homogeneous grouping)	Needs of students occasionally addressed by assigning individually appropriate tasks to different students and by variation in grouping patterns (e.g. small group and individual)	Needs of all students regularly addressed by assigning appropriate tasks to different students and employing a wide range of grouping patterns

7. Availability and Use of Resources

Degree to which a wide variety of relevant resources are available and used in the daily instructional program--print and audio-visual materials,

tutors, community resources. The dimension runs from few resources beyond the standard textbook to a program that uses the maximum relevant resources available. NOTE: a school should not be penalized for limited financial resources; the focus is on what is or could be available in the local school.

1	3	5	7
Some additional materials (such as audio-visual aids) used but with minimal relevance to program	A variety of human and material resources commonly used but usually as add-on filler for the program	Varied, relevant resources used as integral part of some of the instructional program	All instruction involves the use of varied relevant resources

8. Student Access to Resources

The degree to which the resources available in the instructional program are accessible by the students. The dimension runs from no accessibility beyond their own books and minimal library book access to full accessibility of resources to students. NOTE: be practical. Schools must take reasonable precautions against breakage and theft. Also, 12-year olds can do things that 6-year olds can't, such as run sophisticated equipment.

1	3	5	7
No Access beyond instruction books and minimal library privileges heavily supervised	Students given some access to additional resources but with heavy supervision	Some access to resources occurs without custodial supervision	Access to all resources occurs without custodial supervision

9. Student success

The degree to which students experience success in their everyday instructional activities. Tasks are aimed and sequenced in such a manner that

all students expect to succeed. The dimension runs from success on a strictly curved basis (only a few very successful, some always unsuccessful) to an expectation of success for all students. NOTE: this is not limited to grades received.

1	3	5	7
Only a few very successful; some always unsuccessful	Greater success than non-success but a substantial group failing	Most successful; only a few experience failure	All students expect to be successful

10. Student Self-Direction

The degree to which students take responsibility for their own program within the framework provided by the unit faculty--select their own activities, move through the building under their own direction, and generally know what they are doing. The dimension runs from the students kept under an adult's eye at all times to students with a maximum of self-direction with regard to instruction and behavior.

1	3	5	7
Students exercise no self-direction	Students select some of own activities or guide use of some time under close supervision	Students know some of their own needs and choose some activities to be carried out with minimal supervision	Students take responsibility--know what they are doing and why and carry it out without custodial supervision

School: _____

Date: _____

Rater(s): _____

Rating Scales
Outcomes and Implementation

I. Concepts

1. Instructional Cooperation	1	2	3	4	5	6	7
2. Involvement in Decision Making	1	2	3	4	5	6	7
3. Professional Responsibility	1	2	3	4	5	6	7
4. Professional Role Differentiation	1	2	3	4	5	6	7
5. Use of Instructional Objectives	1	2	3	4	5	6	7
6. Continuous Progress	1	2	3	4	5	6	7
7. Availability and Use of Resources	1	2	3	4	5	6	7
8. Student Access to Resources	1	2	3	4	5	6	7
9. Student Success	1	2	3	4	5	6	7
10. Student Self-Direction	1	2	3	4	5	6	7
11. Overall School Rating	1	2	3	4	5	6	7
	Totally non-IGE in outcomes						Totally IGE in outcomes

II. Implementation (Rate only for IGE Schools)

1. MUS Organization	1	2	3	4	5	6	7
2. IPM	1	2	3	4	5	6	7
a. Reading	1	2	3	4	5	6	7
b. Math	1	2	3	4	5	6	7
c. Other	1	2	3	4	5	6	7
3. Facilitative Environments	1	2	3	4	5	6	7
	No Implementation						Total Implementation

APPENDIX E

CORRELATION AND FACTOR ANALYSIS OF OUTCOMES RATINGS

TABLE C1

CORRELATIONS OF OUTCOMES RATINGS

	Instructional Cooperation	Involvement in Decisions	Professional Responsibility	Prof. Role Differen.	Instructional Objectives	Continuous Progress	Avail./Use of Resources	Student Access to Resources	Student Success	Student Self-Direction	Overall Rating	MUS	IPM Overall	IPM Reading	IPM Math	IPM Other	Facilitative Environments
Instructional Cooperation	1.00																
Involvement in Decisions	.40	1.00															
Professional Responsibility	.50	.70	1.00														
Prof. Role Differen.	.37	.40	.14	1.00													
Instructional Objectives	.10	.50	.50	.21	1.00												
Continuous Progress	.12	.41	.57	-.02	.62	1.00											
Avail./Use of Resources	.40	.23	.28	.40	.09	-.06	1.00										
Student Access to Resources	.06	.03	-.02	.13	-.07	.15	.69	1.00									
Student Success	.29	.44	.47	-.27	.19	.58	.15	.15	1.00								

TABLE C1 (continued)

	Instructional Cooperation	Involvement in Decisions	Professional Responsibility	Prof. Role Differen.	Instructional Objectives	Continuous Progress	Avail./Use of Resources	Student Access to Resources	Student Success	Student Self-Direction	Overall Rating	MUS	IPM Overall	IPM Reading	IPM Math	IPM Other	Facilitative Environments
Student Self-Direction	.33	.49	.14	.33	.05	.06	.65	.66	.42	1.00							
Overall Rating	.40	.62	.60	.20	.52	.49	.51	.56	.42	.66	1.00						
MUS	.34	.40	.41	.14	.10	.02	.08	-.06	-.07	.13	.40	1.00					
IPM Overall	-.06	.65	.33	.10	.60	.38	-.13	-.08	.26	.17	.50	.06	1.00				
IPM Reading	-.12	.47	.16	.09	.58	.40	-.22	-.08	.19	.09	.36	.05	.87	1.00			
IPM Math	.50	.51	.60	.20	.74	.63	.28	.11	.29	.16	.63	.45	.40	.42	1.00		
IPM Other	.28	.56	.63	.08	.71	.70	-.02	.09	.17	.49	.62	.41	.54	.53	.78	1.00	
Facilitative Environments	.45	.52	.56	.49	.11	.07	.58	.23	.18	.45	.33	-.07	.03	-.25	.08	.07	1.00

TABLE C2

FACTOR ANALYSIS OF OUTCOME RATINGS FOR IGE SCHOOLS

Variable	Factors 1	2	3	4
Instructional Cooperation	.18	.01	.87	.07
Involvement in Decisions	.19	.60	.59	.08
Professional Responsibility	.03	.63	.62	- .12
Prof. Role Differen.	.24	.14	.34	.81
Instructional Objectives	- .02	.91	.02	.18
Continuous Progress	.04	.83	.04	- .35
Avail./Use of Resources	.81	- .01	.28	.21
Student Access to Resources	.94	.02	- .19	- .06
Student Success	.23	.34	.39	- .75
Student Self-Direction	.85	.06	.30	- .03
Overall Rating	.63	.60	.28	- .06
Total	2.85	2.77	2.05	1.44
Variance	26	25	19	13

TABLE C3

FACTOR ANALYSIS OF OUTCOME RATINGS FOR NON-IGE SCHOOLS

Variable	Factors 1	2	3	4
Instructional Cooperation	.75	.15	.12	.33
Involvement in Decisions	- .13	.82	.27	.09
Professional Responsibility	.79	.41	.17	.15
Prof. Role Differen.	.94	- .15	- .03	.02
Instructional Objectives	.02	.22	.83	- .13
Continuous Progress	- .01	- .16	.75	.54
Avail./Use of Resources	.70	.36	- .33	- .35
Student Access to Resources	.31	.90	- .15	.02
Student Success	.34	.48	.49	- .22
Student Self-Direction	.18	.12	- .06	.87
Overall Rating	.62	.67	.21	.11
Total	3.21	2.59	1.79	1.38
Variance	29	24	16	12

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